

Oracle Utilities Opower Weekly Engagement Cloud Service, Residential

Weekly Engagement, Residential Product Overview



Latest Release

G61651-01

October 2026

ORACLE®

G61651-01

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Getting Started

The Oracle Utilities Opower Weekly Engagement Cloud Service, Residential provides customers with weekly communications that help them understand their rate plans, and potentially save money and help alleviate stress on the grid. There are two main types of communications utility customers can receive:

- Weekly Engagement Reports
- Load Shifting Reports

Weekly Engagement Reports

Weekly Engagement Reports are email reports sent to customers every week to inform them of their energy usage patterns, trends, and projected energy costs. With these emails, customers can better understand how their actions correspond to their utility bills, get a preview of their bills, and get helpful insights on how to adjust their energy usage. Weekly Engagement Reports provide a modernized experience with bold colors, a varied layout, and data-driven insights targeted to specific customer attributes.

Customers can receive the standard Weekly Engagement Report email, or after their bill is ready, they can receive the Post Bill Report email that provides additional insights about energy costs or usage during the billing period. Customers can also be selected to receive Cost Tracker emails as a replacement for the standard Weekly Engagement Report email.

Additionally, you can include Electric Vehicle (EV) Load Shifting insights in your weekly and post-bill emails. For information about these insights, and how to include them in your emails, see [EV Load Shifting Insights in Weekly Engagement Report Emails V3](#).

Load Shifting Reports

Load Shifting Reports are digital customer communications that deliver load shifting insights to customers. These insights educate them about how they are using electricity and provide them with recommendations on how to shift or reduce their electric use in order to save money and put less strain on the grid.

The Weekly Engagement Cloud Service, Residential includes the following load shifting features:

- **TOU Load Shifting Report Emails:** This feature focuses on helping customers understand how their time-of-use (TOU) electric rate plan works, providing personalized insights based on interval usage data to encourage shifting electricity use to lower-cost (off-peak) hours, and helping reduce electric bills. Utilities use TOU rate plans to recover their costs, integrate distributed energy resources, and create a more equitable grid.
- **Non-TOU Load Shifting Report Emails:** This feature focuses on helping customers who are not on a TOU electric plan shift their usage from high-demand times to low-demand times. These emails are digital messages sent through the email channel to inform customers about how they are using energy each week, and to educate them about how they can shift their usage and reduce strain on the grid.

Load Shifting communications vary as follows, based on the rate plan a customer has:

- **TOU Customers:** Customers on a TOU rate plan typically receive weekly TOU Load Shifting Report emails.

- **Non-TOU Customers:** Customers who are not on TOU electric plans can receive weekly Non-TOU Load Shifting Report emails.

By educating customers about their plans, these communications help customers reduce their spending and lower their monthly bills, while also helping utilities shift usage off of high-usage time periods.

What's Included

The following components are available in this service:

- [Weekly Engagement Reports](#)
- [TOU Load Shifting Report Emails](#)
- [Non-TOU Load Shifting Report Emails](#)
- [Inside Opower](#)
- [Customer Service Interface - Program Management](#)

Additional Load Shifting Insights Available

These additional Load Shifting insights are available:

- **Digital Self Service - Energy Management Cloud Service:** Load Shifting insights are also available within the Data Browser and the Bill Comparison components of the Digital Self Service - Energy Management Cloud Service. These insights are available to customers with TOU energy plans. Utilities are not required to have the Weekly Engagement Cloud Service, Residential to provide this information to their customers. See the [Digital Self Service - Energy Management Cloud Service Overview](#) for more information.
- **Energy Efficiency Cloud Service:** Load Shifting insights are also available in the print Home Energy Report (HER) and the Email HER. For example, customers can receive a Peak Focused HER or a TOU HER. These communications encourage utility customers to shift their energy usage to off-peak times. Utilities are not required to have the Weekly Engagement Cloud Service, Residential to send these reports to their customers. See the [Energy Efficiency Cloud Service Overview](#) for more information.
- **High Bill Alerts Cloud Service:** Load shifting insights are also available in the AMI High Bill Alert Emails V3. For example, customers can receive an AMI High Bill Alert email that provides them with information about how their peak-energy usage impacted their bill, and provides information about how they can shift their usage to off-peak times. See the AMI High Bill Alerts Overview for more information.

For an overview of all cloud services available from Oracle Utilities, see the Oracle Energy and Water Cloud Service Descriptions online at [Oracle Contracts - Cloud Service Descriptions](#).

Your utility might not have all of the products or features described in this document. [Contact your Delivery Team](#) if you have any questions.

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Weekly Engagement Reports

Weekly Engagement Reports are email reports sent to customers every week to inform them of their energy usage patterns, trends, and projected energy costs. With these emails, customers can better understand how their actions correspond to their utility bills, get a preview of their bills, and get helpful insights on how to adjust their energy usage.

Customers can receive the standard Weekly Engagement Report email, or after their bill is ready, they can receive the Post-Bill Report email that provides additional insights about energy costs or usage during the billing period. Customers can also be selected to receive Cost Tracker emails as a replacement for the standard Weekly Engagement Report email.

Additionally, you can include Electric Vehicle (EV) Load Shifting insights in your weekly and post-bill emails. For information about these insights, and how to include them in your emails, see [EV Load Shifting Insights in Weekly Engagement Report Emails V3](#).

Requirements and Limitations

This topic discusses requirements and limitations.

Utility Requirements and Limitations

The following requirements and limitations apply to all utilities and customers in the Weekly Engagement Reports program.

- **Scale Limitation:** The number of communications sent may be affected by attrition, opt-outs, customer eligibility, and data availability.
- **Supported Languages:** Not all languages and locales are supported at this time. Contact your Oracle Utilities Sales Representative to confirm that alerts are available in your market.
- **Web Access Required:** A utility must have Oracle Utilities Web Portal access for all of their customers regardless of whether or not certain customers will receive Weekly Engagement Reports, or all of their customers that receive Weekly Engagement Reports must also be report recipients. Without these prerequisites, customer service representatives cannot access the Customer Service Interface to view non-paper Weekly Engagement Report recipients.
- **Single Sign-On:** The utility must use single sign-on (SSO) to be able to edit customer email addresses for non-recipients of the program, or they must edit these via Oracle Utilities Opower APIs.
- **Data Frequency:** The utility must be able to send the customer's data at a daily frequency to Oracle Utilities.
- **Data Transfer Standards:** Data must be sent to Oracle Utilities according to the [Oracle Utilities Opower Interval Data Transfer Standards](#).
- **Billing Frequency:** Customers must be billed on a monthly or bi-monthly basis.
- **Data Transfer Window:** The utility must be able to deliver customer data to Oracle Utilities within 72 hours (48 hours from the last data read of the day).

- **Customer Contact Information:** The utility must be able to provide contact information for the customer if auto-enrollment is being used.
- **Appliance Disaggregation:** There are additional AMI data requirements to show advanced insights such as appliance-level disaggregation and insights about a customer's always-on usage. Contact your Delivery Team for more information.
- **Rate Modeling:** Utility rates must be modeled by Oracle Utilities for cost information to appear. If rates are not modeled, energy use information is displayed by default. If the utility chooses to display cost information, rate modeling is required during initial program setup for an additional fee. See the [Oracle Utilities Opower Rates Engagement Cloud Service Product Overview](#) for more information.

Customer Requirements and Limitations

These are the customer requirements and limitations:

- **Residential Customers Only:** The customer must be residential.
- **Supported Fuel Types:** Electric-only, gas-only, and dual-fuel customers are supported.
- **Service Points Limitation:** The customer must only have one service point for each meter type. For example, dual-fuel customers must have exactly one electricity and one gas service point, while single-fuel customers must only have one service point.
- **Customer Contact Information:** The customer must be able to provide their contact information if self-enrollment (as opposed to auto-enrollment) is used.
- **AMI Data:** The customer must have AMI data for the last two weeks. Hourly or more granular data is required for electric meters. Daily or more granular data is required for gas meters. Weekly Engagement Reports are not sent if this level of data granularity is unavailable for the applicable fuel types. By default, at least 50% coverage is required for the last two weeks, the highest day in the customer's last week, and the last day of the week.
- **Estimated Reads:** If 50% or more of a customer's reads are estimates, the customer is not eligible for a Weekly Engagement Report. If a customer passes all eligibility checks, estimated reads are included in the display of data.
- **Email Address:** The customer must have a valid email address.

Customer Service Limitations

Customer Service Representatives may not be able to determine why a customer did not receive a report. In such cases, an issue should be logged in [My Oracle Support](#).

Customer Experience

Weekly Engagement Reports are email communications that help customers understand their weekly energy use trends and provide personalized tips on how to be more energy efficient. Many areas of the product vary depending on whether or not the customer's rates have been modeled by Oracle Utilities. Depending on when Oracle Utilities receives the customer's data, it is also possible that a customer with their rates modeled will temporarily have the experience of a customer without modeled rates.

Customers can receive different types of Weekly Engagement Report emails, including:

- Weekly Engagement Report
- Post Bill Report Emails
- Cost Tracker Emails

- Cost Tracker Post Bill Report Emails

Weekly Engagement Report

Weekly Engagement Reports are the original and most common email reports sent to customers every week. These emails inform customers of their energy usage patterns, trends, and projected energy usage or costs. With these emails, customers can better understand how their actions correspond to their utility bills, get a preview of their use or bill, and get helpful insights on how to adjust their energy use.

Weekly Engagement Reports are made up of individual modules. The following list includes the recommended modules, in the recommended order:

- [Email Header Module and Subject Lines](#)
- [Weekly Comparison Module](#)
- [Bill Forecast Module](#)
- [Day by Day and Hourly Breakdown Module](#)
- [Tips Module](#)
- [Easy Open Module](#) (Optional)
- [Customer Feedback Module](#) (Optional. Included in the Energy Efficiency Cloud Service.)
- [Email Footer Module](#)

Additionally, you can include Electric Vehicle (EV) Load Shifting insights in your Weekly emails. For information about these insights, and how to include them in your emails, see [EV Load Shifting Insights in Weekly Engagement Report Emails](#).

The following Weekly Engagement Report types are supported:

- **Single Fuel Electric:** Weekly Engagement Reports for customers who only have electricity. The energy units are displayed as kilowatt-hours (kWh).
- **Single Fuel Natural Gas:** Weekly Engagement Reports for customers who only have natural gas. The energy units are displayed as therms, CCF, or m³.
- **Dual Fuel - Electric and Natural Gas:** Weekly Engagement Reports for customers who have both electricity and natural gas. Electric use is displayed as kWh and gas use is displayed as therms, CCF, or m³.

The image below shows an example of an electricity Weekly Engagement Report.

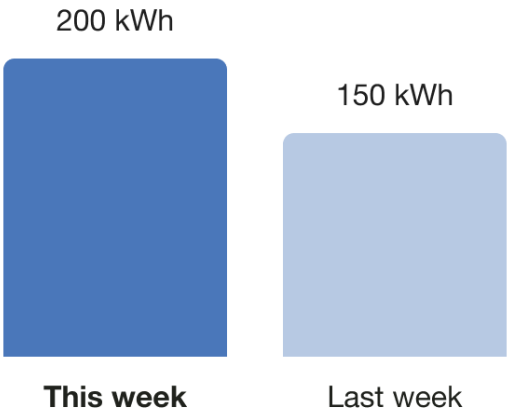
UtilityCo

Account #*****7890

Sarah,
Here's your weekly energy update
April 2 - 8, 2024



You used **33% more** electricity this week



Your bill is projected to be **\$218**

Days until your next bill: 6

This is an estimate.

Your electricity use this week

You used the most on **Wednesday**

Post Bill Report Emails

After a bill period is completed, customers can receive the Post Bill Report email, which provides deeper understanding of how much energy each of their major gas or electric end uses consumed during the month. Disaggregated cost or usage is based on the AMI data that is collected during the billing period. Providing this information helps customers understand where they are using the most energy, and provides them with suggestions about how they can reduce use and save money.

The Post Bill Report email uses the information that the utility knows about the customer to determine their energy usage. While Opower's Appliance Detection and Disaggregation models are not required, they can enhance the data that is provided in the Post Bill Report email. Your Delivery Team can provide you with additional details regarding appliance disaggregation.

Customers receive one Post Bill Report email each month. This email replaces the standard Weekly Engagement Report email on the week after the customer's bill period ends.

The Post Bill Report email is made up of individual modules, and it is recommended that they are included in the email in the following order:

- [Email Header Module and Subject Lines](#)
- [Post-Bill Report Introduction Module](#)
- [Post-Bill Report Bill Comparison Module](#)
- [Post-Bill End Uses Module](#)
- [Post-Bill Always On Module](#)
- [Tips Module](#)
- [Easy Open Module](#) (Optional)
- [Customer Feedback Module](#) (Optional. Included in the Energy Efficiency Cloud Service.)
- [Email Footer Module](#)

Additionally, you can include Electric Vehicle (EV) Load Shifting insights in your Post Bill Report emails. For information about these insights, and how to include them in your emails, see [EV Load Shifting Insights in Weekly Energy Update Emails](#).

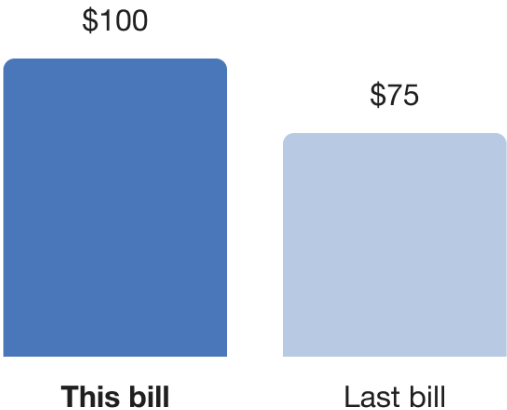
UtilityCo

Account #*****7890

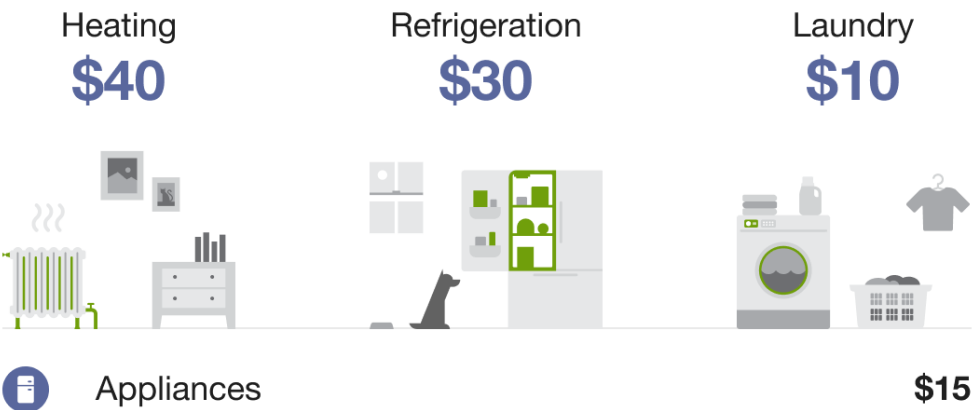
Sarah,
Here's how your bill breaks down
April 16 - May 15, 2024



You spent **\$25 more** on electricity this bill period



These top categories made up **\$80** of your energy cost this bill



Cost Tracker Emails

Cost Tracker emails are designed to help residential customers save more energy by showing them how their energy costs are tracking across the month.

Cost Tracker emails are made up of individual modules. The following list includes the recommended modules, in the recommended order:

- [Email Header Module and Subject Lines](#)
- [Cost Tracker Module](#)
- [Day by Day and Hourly Breakdown Module](#)
- [Tips Module](#)
- [Easy Open Module](#) (Optional)
- [Customer Feedback Module](#) (Optional. Included in the Energy Efficiency Cloud Service.)
- [Email Footer Module](#)

The image below shows an example of an electricity Cost Tracker Report email.

UtilityCo

Account #*****6789

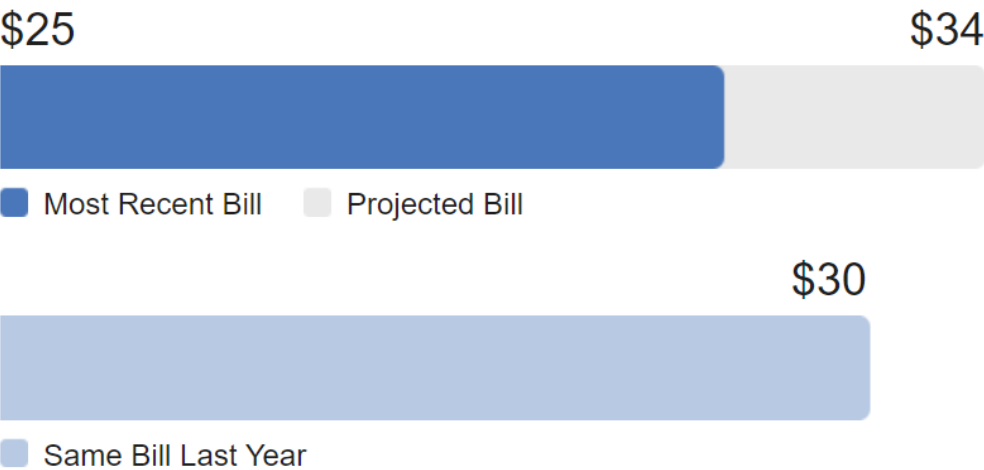
Mary,
Welcome to your weekly energy
update!



December 25 - 31, 2023

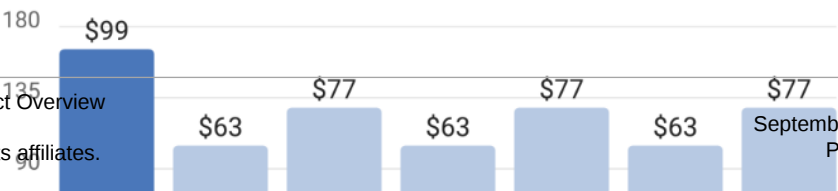
Your electricity charges are trending
higher compared to the same bill
period last year

25 days to end of billing cycle



Your electricity use this week

You used the most on **Monday**



Cost Tracker Post Bill Report Emails

After a bill period is completed, customers who are receiving the Cost Tracker Emails can receive the Cost Tracker Post Bill Report email, which provides deeper understanding of how much energy each of their major gas or electric end uses consumed during the month. Disaggregated cost or usage is based on the AMI data that is collected during the billing period. Providing this information helps customers understand where they are using the most energy, and provides them with suggestions about how they can reduce use and save money.

The Cost Tracker Post Bill Report email uses the information that the utility knows about the customer to determine their energy usage. While Opower's Appliance Detection and Disaggregation models are not required, they can enhance the data that is provided in the Cost Tracker Post Bill Report email. Your Delivery Team can provide you with additional details regarding appliance disaggregation.

Customers receive one Post Bill Report email each month. This email replaces the standard Weekly Engagement Report email on the week after the customer's bill period ends.

The Post Bill Report email for customers who receive Cost Tracker Report emails is made up of individual modules, and it is recommended that they are included in the email in the following order:

- [Email Header Module and Subject Lines](#)
- [Cost Tracker Module](#)
- [Post-Bill End Uses Module](#)
- [Post-Bill Always On Module](#)
- [Tips Module](#)
- [Easy Open Module](#) (Optional)
- [Customer Feedback Module](#) (Optional. Included in the Energy Efficiency Cloud Service.)
- [Email Footer Module](#)

This image shows an example of the email:



Account #*****6789

Sarah,
Here's how your most recent bill
breaks down
December 31, 2023 - February 1, 2024



**You spent less on electricity this bill
period than the same period last year**

22 days in billing cycle

\$700.7



■ Most Recent Bill

\$1,229.2



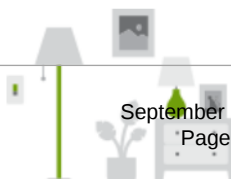
■ Same Bill Last Year

**These top categories made up \$271 of your
energy cost this bill**

Appliances
\$118

Water Heating
\$106

Lighting
\$47



Enrollment

Eligible customers can be enrolled in one of two Weekly Engagement Report programs: opt-in or opt-out. In either program, customers can unsubscribe from emails at any time.

Opt-In Program: In an opt-in program, customers are given the option to sign up voluntarily, rather than being automatically enrolled. In this scenario, Oracle Utilities and the utility must coordinate to determine how to promote the emails and encourage customers to sign up. Customers can use the Oracle Utilities web portal to enroll in Weekly Engagement Reports.

Opt-Out Program: In an opt-out program, customers are automatically enrolled as long as they meet the eligibility criteria. In this scenario, Oracle Utilities coordinates with the utility to select which customers to enroll.

Delivery

This section provides general information about the delivery of the Weekly Engagement Reports, such as the frequency of delivery, what defines a "weekly cycle," the timing for the delivery day, and customer email preferences.

Frequency: The Weekly Engagement Reports email is sent weekly. The Weekly Engagement Reports Introduction email is sent once when a customer is sent their first Weekly Engagement Report.

If customers also receive the Post Bill Report email, it is limited to being sent once per month to avoid excessive alerting. The standard Weekly Engagement Report is not sent during the week that the Post-Bill Report email is sent. The Post-Bill Report should be sent within 10 days of the customer's bill cycle ending.

If customers are selected to receive the Cost Tracker email, this email is the Weekly Engagement Report email that the customer receives on a weekly basis. A Cost Tracker Post-Bill Report email is also included, and is sent once per month to avoid excessive alerting. The standard Cost Tracker email is not sent during the week that the Post-Bill Report email is sent. The Post-Bill Report should be sent within 10 days of the customer's bill cycle ending.

Weekly Cycle: The weekly cycle for the emails starts on Monday at 12:00:00 AM (midnight) and ends on Sunday at 11:59:59 PM. Emails are sent to customers as soon as possible after the end of a weekly cycle. Basing communications on a weekly basis is consistent with how people typically think about their personal and family schedules, and allows customers to better analyze their weekday usage against their weekend usage. Weekly cycles and billing cycles are independent of one another. A weekly cycle may contain the end of one billing cycle and the beginning of another.

Emails are not sent any later than 96 hours, or four days, after the end of the weekly cycle. For example, if the weekly cycle covers Monday morning through Sunday night, an email will not be sent later than the following Thursday night. (This expiration parameter can be configured for each utility.) Emails are not sent to customers whose data is either unavailable or does not become available until after the expiration.

Delivery Day: Ideally, customers will receive their Weekly Engagement Report shortly after the end of a weekly cycle. This is typically 2-4 days after the data is received by the utility.

Email Content: Content is delivered directly in the email message with no attachments. This makes it more convenient for customers to quickly view the information, and also makes the emails less likely to be blocked by spam filters.

Analytics: Oracle Utilities uses a third-party vendor to send Weekly Engagement Reports. This tool allows Oracle Utilities to collect information on the number of bounces, opens, opt-outs, and click-throughs.

Email Preferences: Customers who enroll in the program through the Oracle Utilities web portal can sign up to receive Weekly Engagement Reports at a single email address. Customers can be enrolled to receive the email at multiple email addresses through the Customer Notification API. See the [Oracle Utilities REST API for Digital Self Service Energy Management](#) for more information.

Providing Customer Support

Customer Service Representatives can do the following in the Oracle Utilities Opower Customer Service Interface (CSI):

- View some components of Weekly Engagement Report emails sent to customers.
- Manage a customer's preferences.
- Help a customer update their email address.

See [Supporting Weekly Engagement Reports \(formerly known as Weekly Energy Updates\)](#) for details.

3

Load Shifting Reports

The Load Shifting Cloud Service, Rate Coach (v3) includes the following email reports:

- [TOU Load Shifting Report Emails](#)
- [Non-TOU Load Shifting Report Emails](#)

Each of these reports is made up of [individual modules](#).

TOU Load Shifting Report Emails

Time of Use (TOU) Load Shifting Report emails provide utility customers with a series of weekly emails. Each email is designed to encourage customers on TOU rate plans to shift electricity to off-peak hours. The emails include rate plan details, personalized energy use insights, and actionable tips to help customers reduce usage when electricity is most expensive, and save money on their energy bills.

Requirements and Limitations

The following data requirements and limitations apply to utilities and customers using the TOU Load Shifting Report emails. These requirements must be met for a utility and a customer to participate in the program.

Utility Requirements and Limitations

This list specifies the utility requirements and limitations:

- **Rate Modeling or Rate Engine Plus:** In order for the platform to support utility-specific rates, an intensive rates modeling and configuration process is necessary.
- **Required Cloud Services:** Oracle Utilities Opower Weekly Engagement Cloud Service, Residential.

Customer Requirements and Limitations

This list specifies the customer requirements and limitations:

- **Billing Frequency:** Monthly or bi-monthly.
- **Data Delivery Frequency:** Daily. Must be received within 48 hours from last data read.
- **Data Requirements:** Interval data (hourly or more granular).
 - **Hourly Disaggregation Data Requirements:** There are additional AMI data requirements to show advanced insights such as appliance-level disaggregation. [Contact your Delivery Team](#) for more information.
- **Data History:** Interval data for the last two weeks, billing data for the last 12 months, and AMI data to the beginning of the current billing cycle. Note that the [Hourly Usage module](#) has additional data history requirements.
- **Data Coverage:** Oracle must receive read coverage for the period included in the email. The period duration can vary from 5 to 7 days (for weekly emails), as it depends on the utility's peak hour intervals. This product does not differentiate between estimated and non-

estimated reads. Both types of reads are supported. At least 75% of possible reads for the current billing cycle (including estimated reads) is required to calculate the bill forecast.

- **Fuel Type:** Electric-only or dual fuel. Note that these emails cover **only** the electric portion of the customer's bill and usage.
- **Meter Type:** The customer must have a smart meter.
- **Customer Type:** The customer must be residential.
- **Rate Plan:** The customer must be on a Time of Use (TOU) rate plan to receive the TOU Load Shifting Report emails.
- **Multiple Service Points:** Not currently supported.
- **Zero Usage:** In the case when a customer hasn't used any electricity during the week, several checks are completed to determine whether to hide modules:
 - **Introduction Email:** If the [Hourly Usage module](#) has no usage, the module is excluded from the Introduction Email.
 - **Weekly Email:** If the [Weekly Comparison module](#) has no usage, the weekly email is not sent. If the [Hourly Usage module](#) has no usage, the module is excluded but the Weekly Email is sent.
 - **Emails Including the Season Transition Information:** If the Weekly Email or the Post-Bill Report Email includes a [Season Transition module](#), and the [Weekly Comparison module](#) has no usage, the Weekly Comparison module is excluded from the communication. If the [Hourly Usage module](#) has no usage, the module is excluded from the communication.

Customer Experience: TOU Load Shifting Report Emails

Customers who participate in the TOU Load Shifting Report email program receive one of the following email types each week:

- Introduction emails
- Weekly emails
- Post-Bill Report emails

Each email is comprised of [individual modules](#). Additionally, the [Easy Open module](#), which is included in the Proactive Alerts Cloud Service, can also be included in the emails.

Note

Oracle recommends using the default order of the modules, as the emails were designed to be read from top to bottom, to provide the reader with an easy-to-understand message about their energy use. The default order of the modules for each email is listed in the following topics.

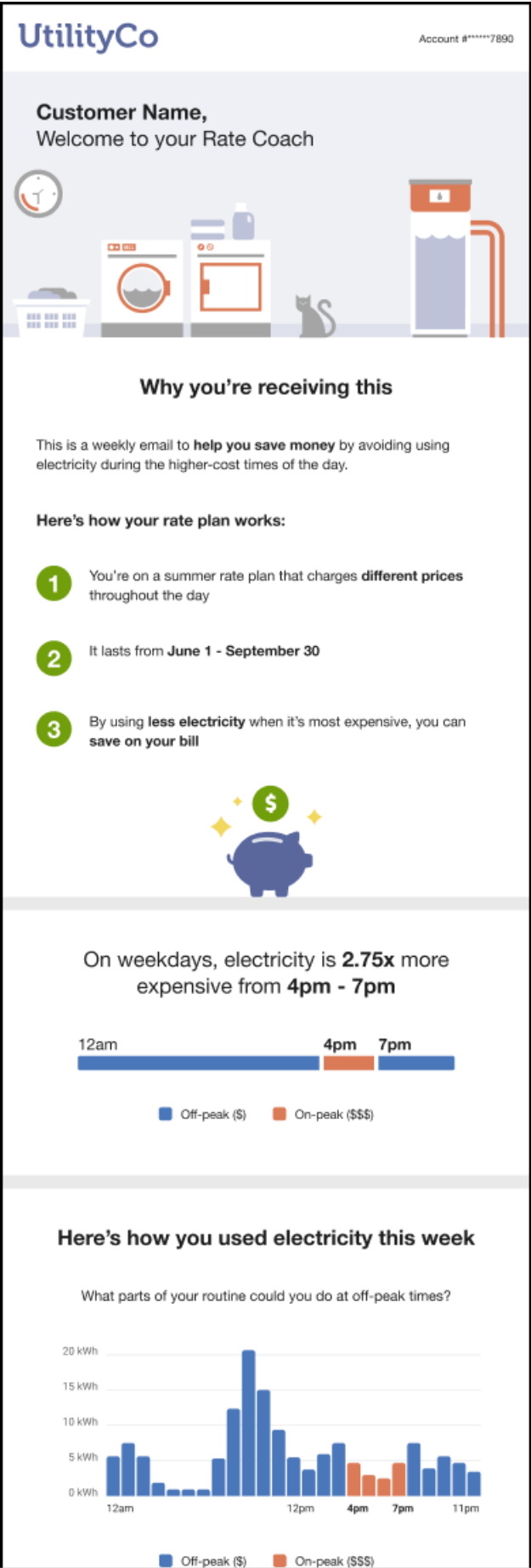
Introduction Emails

The Introduction email is the first weekly email customers receive as part of the program. This email is designed to welcome customers to the program, provide peak hour energy use insights, and offer tips on how to reduce energy use during peak hours.

The Introduction email contains the following modules, in the order listed:

- [Email Header and Subject Lines Module](#)

- [Introduction Module](#)
- [Transition Module - Welcome State](#)
- [TOU 101 Module](#)
- [Hourly Usage Module](#)
- [Big Appliances Module](#)
- [Easy Open Module](#) (optional)
- [Email Footer Module](#)



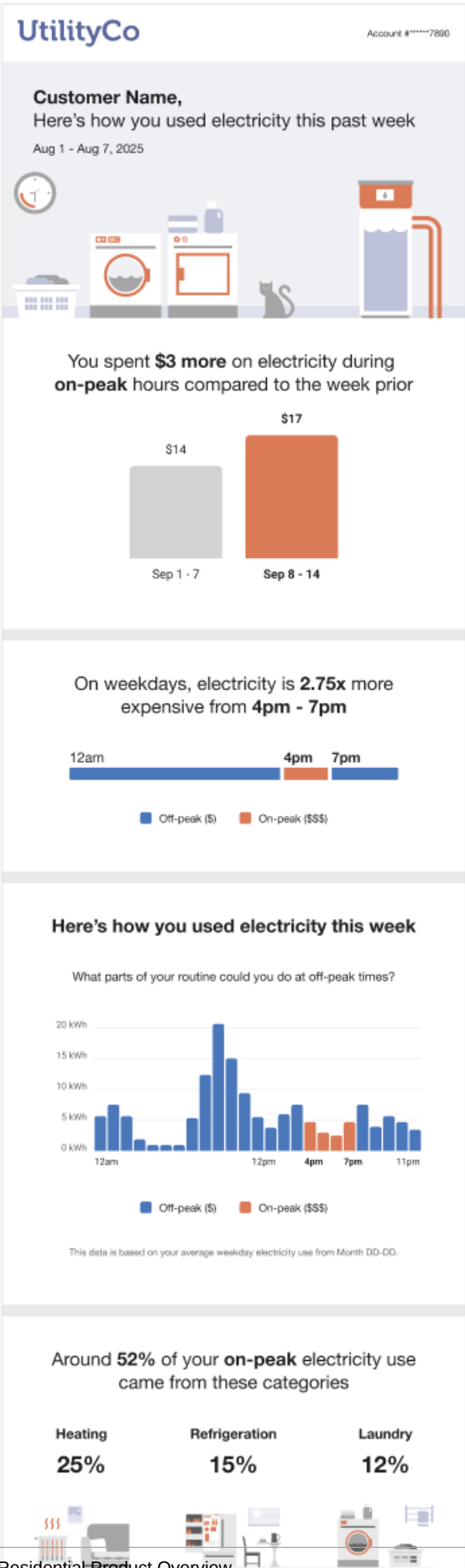
Weekly Emails

The Weekly email is delivered to customers at the end of each week. It provides peak hour energy use insights as well as a comparison between peak hour electricity spending during the current week and the previous week. The email also includes a breakdown of up to three appliances that were used during peak hours.

Customers begin receiving the Weekly email after they receive their Introduction email, and do not receive the Weekly email in weeks when they receive the Post-Bill Report Email.

The Weekly email contains these modules, in the order listed:

- [Email Header Module and Subject Lines](#)
- [Introduction Module](#)
- [Transition Module](#) (Included during seasonal transition periods only.)
- [Weekly Comparison Module](#)
- [TOU 101 Module](#)
- [Hourly Usage Module](#)
- [Peak Period Disaggregation Module](#)
- [Tips Module](#)
- [Easy Open Module](#) (optional)
- [Email Footer Module](#)

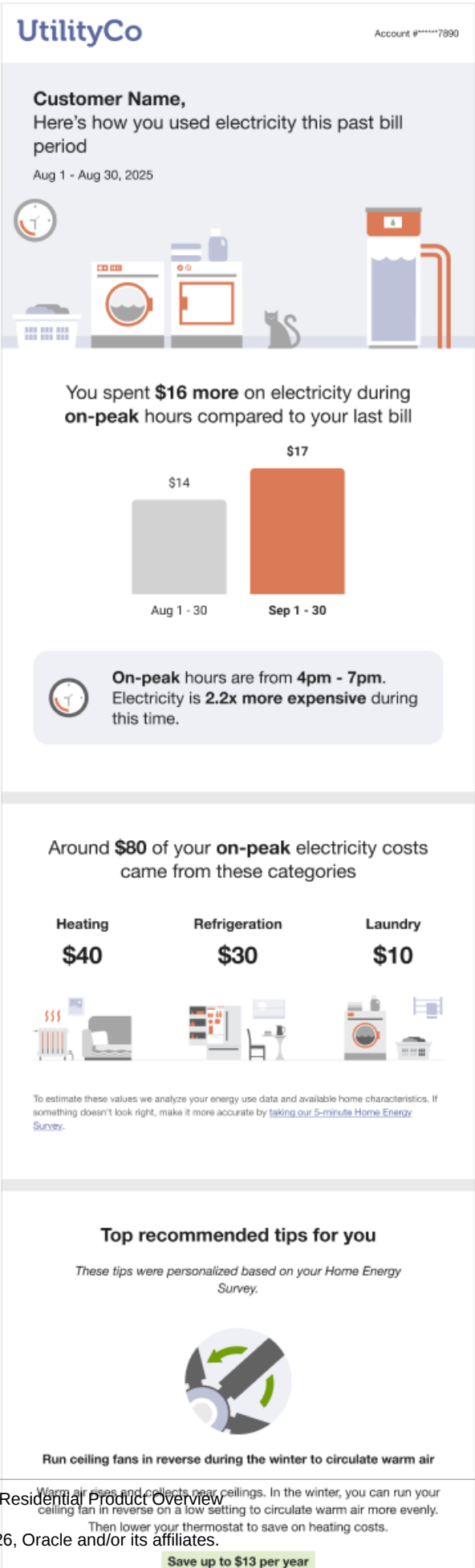


Post-Bill Report Emails

The Post-Bill Report is delivered to customers at the end of each month. The report helps customers understand which appliances they are using during peak hours, and how that usage contributes to their energy charges under a TOU rate plan. It includes a comparison of peak usage or costs between the customer's most recent bill and previous bill, a peak period disaggregation module, and a tip.

By default, the Post-Bill Report emails contain these modules, in the order listed:

- [Email Header and Subject Lines Modules](#)
- [Introduction Module](#)
- [Post-Bill Report Bill Comparison Module](#)
- [Peak Period Disaggregation Module](#)
- [Tips Module](#)
- [Load Shifting Collective Benefit Module](#)
- [Email Footer Module](#)



Non-TOU Load Shifting Report Emails

Non-TOU Load Shifting Report emails help customers who are not on a TOU electric rate understand their energy usage. These emails are sent each week to inform customers about how they used energy over the past week, or the past bill period. These emails also educate customers about how they can shift their usage to times when there is lower demand on the utility grid.

The series of emails includes:

- Introduction email
- Weekly emails
- Post-Bill Report emails

Requirements and Limitations

The following data requirements and limitations apply to utilities and customers using the Non-TOU Load Shifting Report emails. These requirements must be met for a utility and a customer to participate in the program.

Utility Requirements and Limitations

This list specifies the utility requirements and limitations:

- **Required Cloud Services:** Oracle Utilities Weekly Engagement Cloud Service, Residential.

Customer Requirements and Limitations

This list specifies the customer requirements and limitations:

- **Billing Frequency:** Monthly or bi-monthly.
- **Data Delivery Frequency:** Daily. Must be received within 48 hours from last data read.
- **Data Requirements:** Interval data (hourly or more granular).
 - **Hourly Disaggregation Data Requirements:** There are additional AMI data requirements to show advanced insights such as appliance-level disaggregation. [Contact your Delivery Team](#) for more information.
- **Data History:** Interval data for the last two weeks, billing data for the last 12 months, and AMI data to the beginning of the current billing cycle. Note that the [Hourly Usage module](#) has additional data history requirements.
- **Data Coverage:** Oracle must receive read coverage for the period included in the email. The period duration can vary from 5 to 7 days (for weekly emails), as it depends on the utility's peak hour intervals. This product does not differentiate between estimated and non-estimated reads. Both types of reads are supported. At least 75% of possible reads for the current billing cycle (including estimated reads) is required to calculate the bill forecast.
- **Fuel Type:** Electric-only or dual fuel. Note that these emails cover **only** the electric portion of the customer's bill and usage.
- **Meter Type:** The customer must have a smart meter.
- **Customer Type:** The customer must be residential.

- **Rate Plan:** The customer must not be on a TOU rate plan.
- **Multiple Service Points:** Not currently supported.
- **Zero Usage:** In the case when a customer hasn't used any electricity during the week, several checks are completed to determine whether to hide modules.

Customer Experience: Non-TOU Load Shifting Report Emails

Customers who participate in the Non-TOU Load Shifting Report email program receive one of the following email types each week:

- Introduction emails
- Weekly emails
- Post-Bill Report emails

Each email is comprised of [individual modules](#).

Note

Oracle recommends using the default order of the modules, as the emails were designed to be read from top to bottom, to provide the reader with an easy-to-understand message about their energy use. The default order of the modules for each email is listed in the following topics.

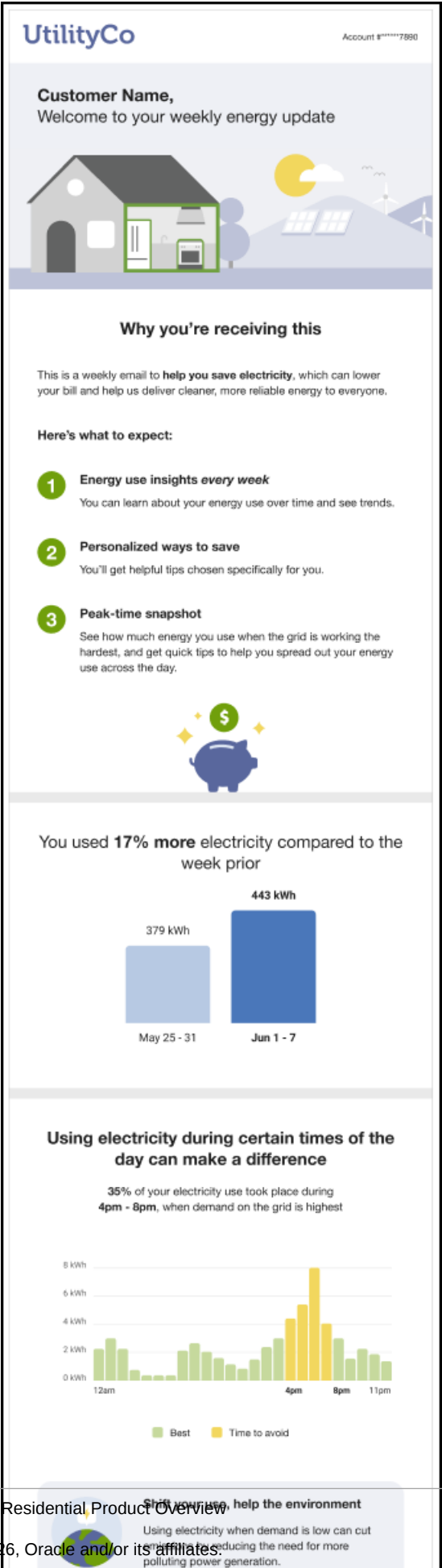
Introduction Emails

The Introduction email is the first weekly email customers receive as part of the program. This email is designed to welcome customers to the program.

The Introduction email contains the following modules, in the order listed:

- [Header and Subject Lines](#)
- [Introduction module](#)
- [Transition module](#) (in Welcome state)
- [Weekly Comparison module](#)
- [24 Hour Chart for Flat Rates module](#)
- [Big Appliances module](#)
- [Footer](#)

This image shows an example of the Introduction email:



Weekly Emails

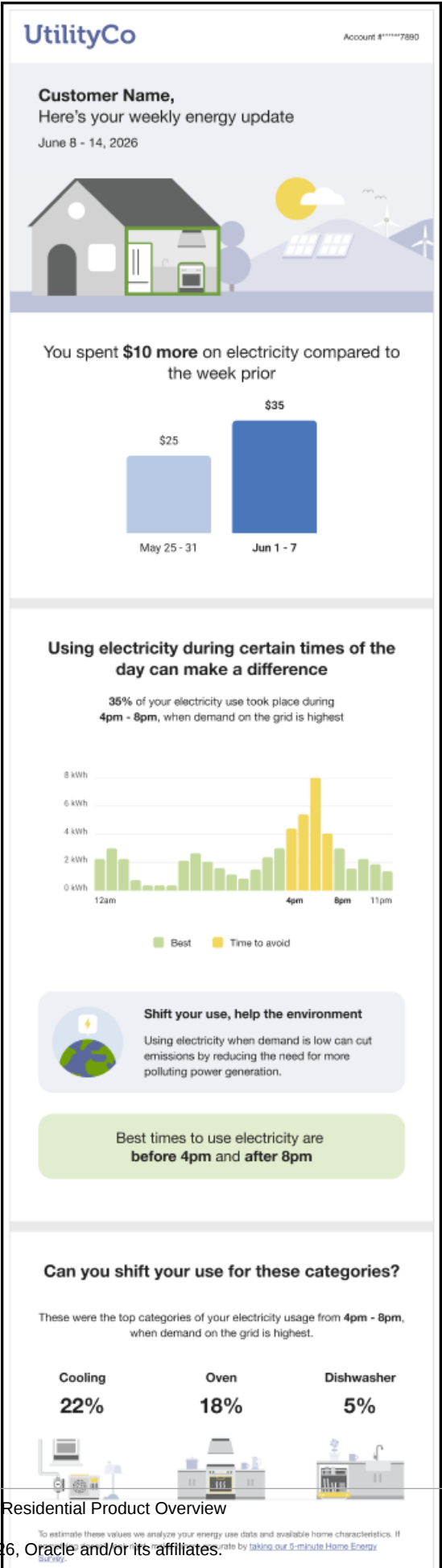
The Weekly Non-TOU Load Shifting Report email is delivered to customers at the end of each week. It provides a comparison between electricity spending during the current week and the previous week. It also provides personalized tips about how customers can save energy.

Customers begin receiving the Weekly email after they receive their Introduction email, and do not receive the weekly email in weeks when they receive the Post-Bill Report email.

The Weekly email contains these modules, in the order listed:

- [Header and Subject Lines](#)
- [Introduction module](#)
- [Weekly Comparison module](#)
- [24 Hour Chart for Flat Rates module](#)
- [Flat Rate Disaggregation module](#)
- [Personalized Tips](#)
- [Footer](#)

This image shows an example of the weekly email:



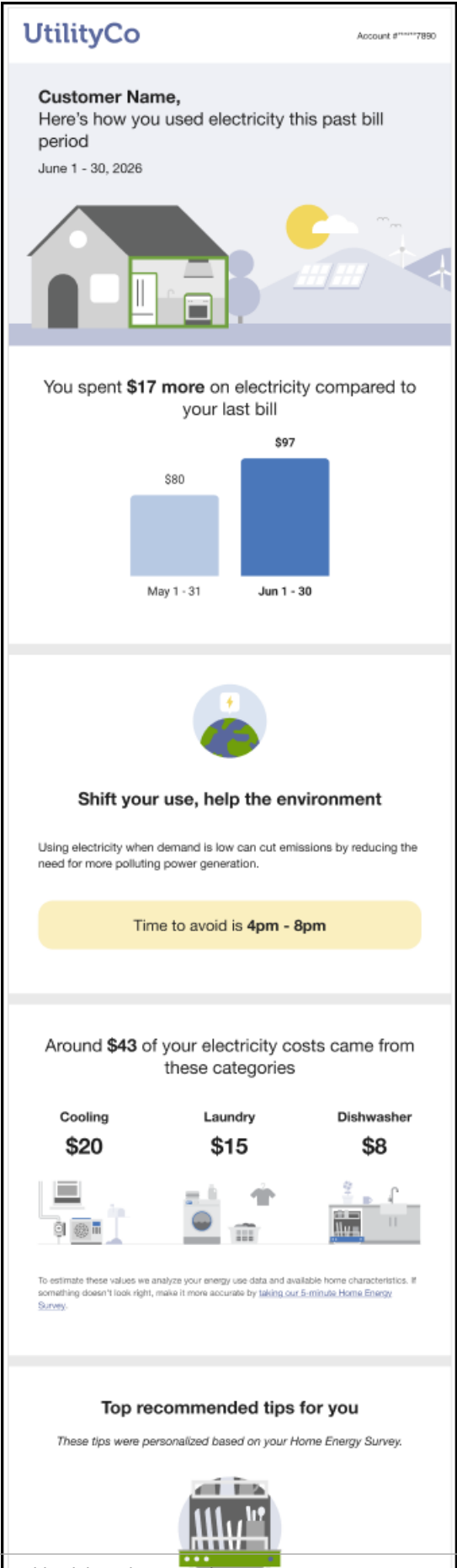
Post-Bill Report Email

The Post-Bill Report is delivered to customers at the end of each month. The report helps customers understand which appliances they are using during peak hours, and how that usage contributes to their energy charges. It includes a comparison of the current bill and the previous bill, and provides personalized tips on how customers can save energy.

By default, the Post-Bill Report emails contain these modules, in the order listed:

- [Header and Subject Lines](#)
- [Introduction module](#)
- [Post-Bill Comparison module](#)
- [Shift Nudge module](#)
- [Flat Rate Disaggregation module](#) (Post-Bill Report Variation)
- [Personalized Tips](#)
- [Footer](#)

This image shows an example of the Post-Bill Report email:



Enrollment

Customers can be enrolled to receive Load Shifting Report emails through an opt-out program. In an opt-out program, customers are automatically enrolled as long as they meet the eligibility criteria, and they can unsubscribe at any time.

Delivery

Load Shifting emails are regularly scheduled communications. The rules that govern delivery of these emails include:

Waking Hours: Messages must be delivered during waking hours (between 9:00 AM and 6:00 PM) in a utility-specific delivery window. You cannot choose the specific time to send.

Weekdays: Messages must be delivered only on business days (Monday-Friday). They cannot be delivered on weekends.

Weekly Cycle: Weekly cycles begin on Monday at 12:00:00 AM (midnight) and end on Sunday at 11:59:59 PM. This is consistent with how people typically think about weekly events, and allows customers to better analyze their weekday usage compared to their weekend usage. The email is sent as close to the end of the weekly cycle as possible, depending upon when the AMI data becomes available. Weekly cycles and billing cycles are independent of one another. A weekly cycle may contain the end of one billing cycle and the beginning of another.

Note

Emails are not sent any later than 96 hours, or four days, after the end of the weekly cycle. For example, if the weekly cycle covers Monday morning through Sunday night, an email will not be sent later than the following Thursday night. This expiration parameter can be configured for each utility. Emails are not sent to customers whose data is either unavailable or does not become available until after the expiration.

Delivery Frequency: Ideally, customers will receive their weekly email shortly after the end of a weekly cycle. This is typically 2-4 days after the data is received by the utility. During the first week, customers receive the Introduction email. Every fourth week, the Post Bill Report email is delivered. During all other weeks, customers receive the weekly email. Note that customers cannot opt out of one type of Load Shifting email without also opting out of all Load Shifting emails.

Blackout Periods: Blackout periods are spans of time (usually a certain week or day) during which clients do not want us to send email communications to their customers. Blackout periods are not supported for these emails.

Emails and Attachments: Email content is delivered directly in the email message with no attachments. This makes it more convenient for customers to quickly view the information, and it makes the emails less likely to be blocked by spam filters.

Providing Customer Support

Customer Service Representatives can do the following in the Oracle Utilities Opower Customer Service Interface (CSI) to assist with customer inquiries related to Load Shifting emails:

- Review copies of Load Shifting communications sent to customers

See [Supporting Load Shifting Emails](#) for additional information.

4

Email Modules

All of the emails included in the Weekly Engagement Cloud Service, Residential are made up of individual modules. The topics in this section describe the modules used in each of the emails.

Weekly Engagement modules include:

- [24 Hour Chart for Flat Rates Module](#)
- [Big Appliances Module](#)
- [Bill Forecast Module](#)
- [Cost Tracker Module](#)
- [Day by Day and Hourly Breakdown Module](#)
- [Easy Open Module](#)
- [Email Footer Module](#)
- [Email Header Module and Subject Lines](#)
- [EV Load Shifting Insights in Weekly Engagement Report Emails](#)
- [Flat Rate Disaggregation Module](#)
- [Hourly Usage Module](#)
- [Introduction Module](#)
- [Load Shifting Collective Benefit Module](#)
- [Peak Period Disaggregation Module](#)
- [Post-Bill Always On Module](#)
- [Post-Bill End Uses Module](#)
- [Post-Bill Report Load Shifting Bill Comparison Module](#)
- [Post-Bill Report Bill Comparison Module](#)
- [Post-Bill Report Introduction Module](#)
- [Shift Nudge Module](#)
- [Tips Module](#)
- [TOU 101 Module](#)
- [Transition Module](#)
- [Weekly Comparison Module](#)

24 Hour Chart for Flat Rates Module

The 24 Hour Chart for Flat Rates module helps customers understand how their electricity usage is distributed throughout the day, with a specific focus on peak hours. It shows how much electricity they used during peak periods and provides a clear 24-hour view of their average usage over the past week.

The chart makes consumption patterns easy to interpret at a glance. By visualizing when energy is used most and highlighting opportunities to shift usage, this module encourages customers to make more informed decisions about when they consume electricity. These changes can help reduce strain on the grid during peak periods and support environmentally responsible energy usage.

For utilities, this module supports demand management goals and promotes energy-conscious behavior. It enhances customer engagement by delivering timely, relevant insights that encourage customers to shift usage to optimal times, improving grid efficiency and contributing to a more sustainable energy system.

User Experience

This module includes the following components:

Heading: A title that introduces the purpose of the chart and focuses on peak hour usage. For example, "Using electricity during certain times of the day can make a difference".

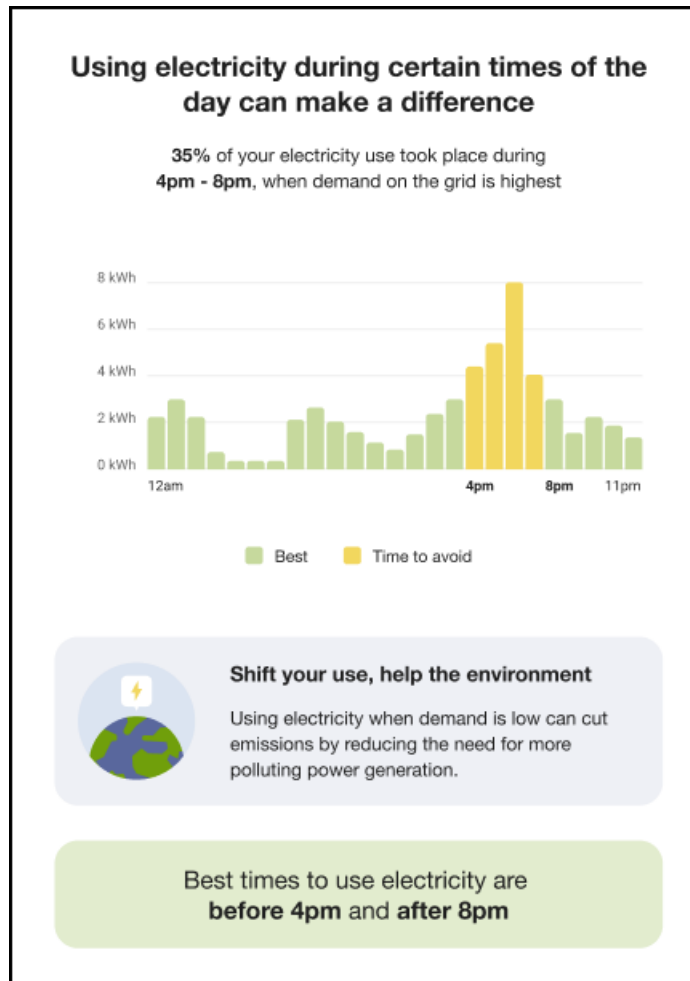
Usage Statement: A statement that summarizes the customer's average weekly peak usage. For example, "35% of your electricity use took place during 4pm - 8pm, when demand on the grid is highest".

24-Hour Chart: A bar chart that shows the customer's average electricity usage by hour over the past week. The chart highlights peak hours so the customer can see how they are using electricity during times the utility would like them to avoid.

Environmental Statement: This section begins with the heading, "Shift your use, help the environment" and includes a statement that explains how shifting usage can benefit the environment. For example, "Using electricity when demand is low can cut emissions by reducing the need for more polluting power generation."

Best Times Statement: A reminder of the best times to use electricity. For example, "Best times to use electricity are before 4pm and after 8pm."

This is an example of the 24 Hour Chart for Flat Rates Module:



Big Appliances Module

This module educates customers about which appliances use the most electricity, and which are low-usage appliances. This information enables customers to understand how they can shift the usage of their appliances to save money during peak hours.

User Experience

This module includes the following components:

Heading: This statement tells customers that the information in this module will help them save money during peak hours. For example, "How you can save big during on-peak hours".

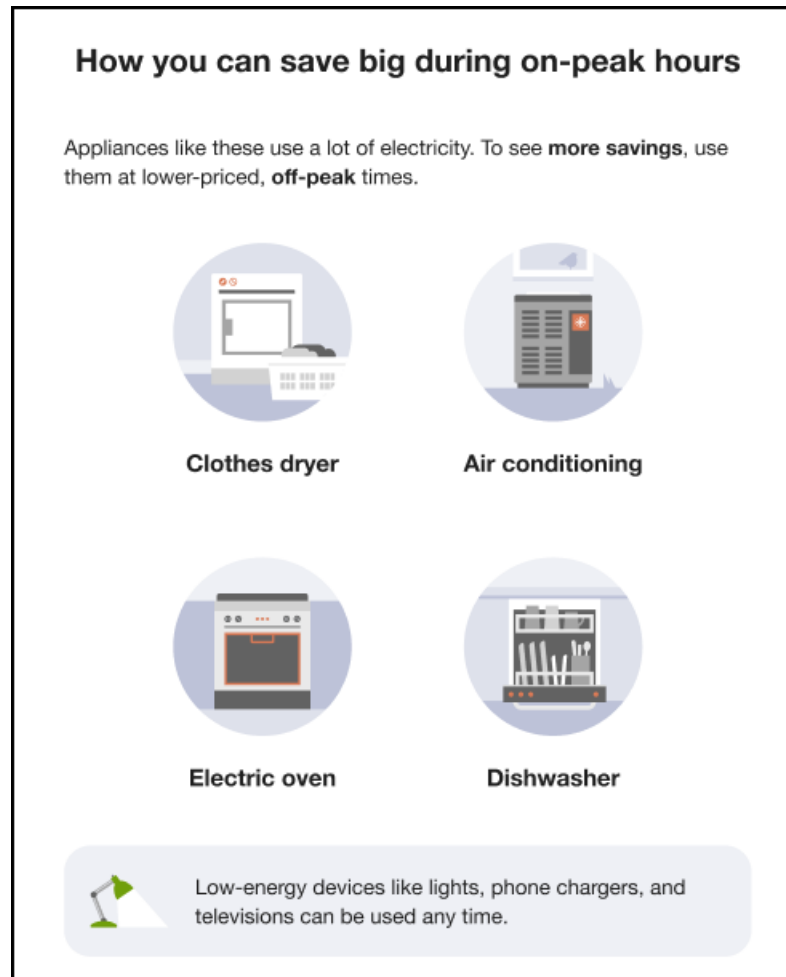
High-Energy Insight Statement: This statement tells customers that big appliances typically use the most energy, and that they can save money by using these high-usage appliances during off-peak hours. For example, "Appliances like these use a lot of electricity. To see more savings, use them at lower priced, off-peak times."

Graphics: The statement is followed by graphics of large appliances with labels, such as:

- Clothes dryer
- Electric oven

- Air conditioning

Low-Usage Insight Statement: This statement tells customers which appliances are low-usage, and can be used at any time. For example, "Low energy devices like lights, phone chargers, and televisions can be used any time."



User Experience Variations

This section discusses how the module can vary.

Weekly Engagement Report Variations

When used in the Weekly Engagement Report emails, the heading varies as follows:

- **Single Fuel Electric:** "Your weekly electricity update"
- **Single Fuel Natural Gas:** "Your weekly gas update"
- **Dual Fuel - Electric and Natural Gas:** "Your weekly energy update"
- **Post Bill Report:** The module is not included. Instead, the [Post-Bill Report Introduction Module](#) is included.

Non-TOU Load Shifting Report Variation

When this module is included in the Non-TOU Load Shifting Report, it varies as follows:

- **Heading:** The heading asks the reader to consider what appliances they can use during a different time period. For example, "What you can shift".
- **High-Energy Insight Statement:** The statement notifies the customer that they can shift their usage to a different time period to use cleaner energy sources. For example, "Appliances like these use a lot of electricity. To use cleaner sources of energy, use them **before 4pm** and **after 8pm**, when demand on the grid is lower."

Bill Forecast Module

The Bill Forecast module informs customers how much their bill is projected to be by the end of the billing period. Dual fuel customers see a combined bill forecast for both electric and gas use. The purpose of the forecast is to encourage customers to lower their usage before the bill period ends.

Note

The Bill Forecast module is not included in Cost Tracker Report emails, as this forecast is accomplished through the Cost Tracker module.

Requirements and Limitations

Requirements and limitations are as follows:

- **Data History:** The customer must have AMI data back to the beginning of the current bill period. One historical bill, from any billing period, is required to determine where the customer falls in the billing cycle for a given date.
- **Data Coverage:** The customer must have non-null reads for 75% of the total possible reads over both the last seven days as well as the total reads-to-date.
- **Cost Information Automatically Displayed:** Unlike other modules in the email, the Bill Forecast automatically displays cost information for eligible customers.
- **Rate Modeling:** Utility rates must be modeled by Oracle Utilities for cost information to appear. If rates are not modeled, energy use information is displayed by default. If the utility chooses to display cost information, rate modeling is required during initial program setup for an additional fee. See the [Oracle Utilities Opower Rates Engagement Cloud Service Product Overview](#) for more information.
- **AMI Data Used:** The AMI data used in the rest of the email is based on the data available as of Sunday, but the bill forecast in the email is based on the latest data available at the time that the email is generated. This may result in minor discrepancies between the bill forecast and the rest of the Weekly Engagement Report.

User Experience

Bill to Date: The bill to date provides the current charges for a customer's bill so far in the billing cycle. Cost information is automatically displayed if rates are modeled.

Forecast Statement: The forecast statement projects how much the customer's bill could be if they continue their current energy-spending behavior through the end of the billing period. The

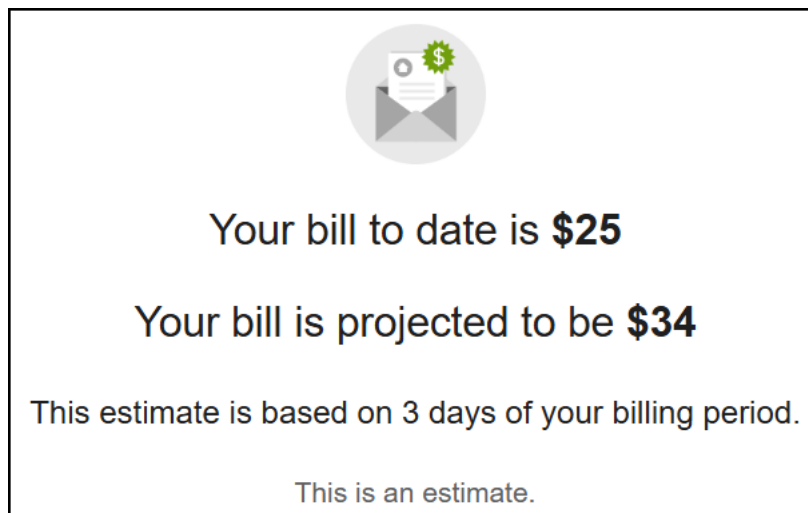
forecast is based on the estimated length of the bill. Cost information is automatically displayed if rates are modeled.

Estimation Statement: It is clearly stated that the forecast is an estimate to assure customers that their actual billed usage amount may be different. The estimate does not include taxes and fees.

Days Remaining: The number of days remaining in the billing period is shown to reinforce the idea that the customer still has time to save energy.

Calculation: The forecast calculation relies upon Oracle Utilities Opower receiving a sufficient amount of energy use data for the customer. The customer must also meet the minimum eligibility criteria for the forecast, including the availability of at least one historical bill. At a high level, the bill forecast calculation involves the following steps:

1. Calculate the baseline cost that the customer pays for using energy.
2. Estimate the customer's billing period end date.
3. Calculate how much energy the customer has used to date.
4. Take the customer's energy use and project it forward to the billing period's end date.
5. Convert the resulting energy use values to cost values, based on the customer's rate plan. The output is an actual cost value (to date) and a projected cost value (going forward).



Cost Tracker Module

The Cost Tracker module is designed to help residential customers save more energy by showing them how their energy costs are tracking across the month.

Requirements and Limitations

Requirements and limitations are as follows:

- **Data Requirements:** The customer must have AMI data for the last thirteen months. This is required to compare the current bill to the same bill from last year. See additional details in the global [Requirements and Limitations](#) section.

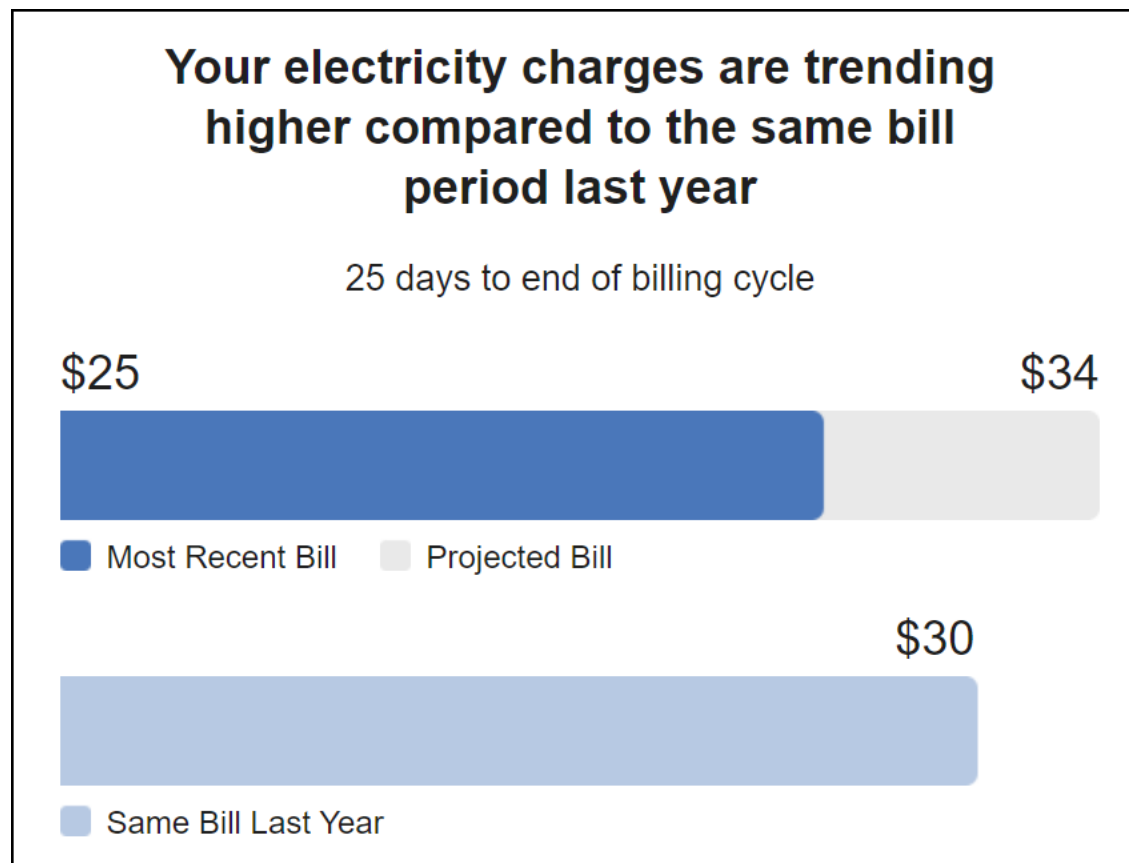
- **Rate Modeling:** Utility rates must be modeled by Oracle Utilities for cost information to appear. If rates are not modeled, energy use information is displayed by default. If the utility chooses to display cost information, rate modeling is required during initial program setup for an additional fee. See the [Oracle Utilities Opower Rates Engagement Cloud Service Product Overview](#) for more information.

User Experience

The module has these components:

Insight Statement: The current billing period projection is used to provide an insight statement of whether the user is projected to have a higher bill, lower bill, or spend about the same as compared to the same bill from last year. The time left until the end of the billing cycle is also provided.

Bar Chart: A bar chart comparison of energy costs for the current billing period and the same billing period from last year is displayed. The energy costs incurred so far in the billing cycle are provided along with a projection of energy costs at the end of the billing cycle.



Calculations

The Cost Tracker insight is generated by displaying the customer's energy use or costs for the week, a projection of what the customer is forecast to use by the end of the billing period, along with a bill or energy use from the same bill period last year. The customer's current energy use information is collected through their AMI data. If the customer's rate is available, the rate is multiplied by energy use to determine cost. Otherwise, energy use is displayed. The

insight calculates the projected difference to alert the customer as to whether they are projected to use more energy, use less energy, or use about the same amount of energy.

Day by Day and Hourly Breakdown Module

The Day By Day and Hourly Breakdowns module displays these breakdowns one after the other. Refer to each section to learn about each breakdown.

Requirements and Limitations

Requirements and limitations are as follows:

- **Web Portal Data:** Data shown in the Oracle Utilities web portal may be inconsistent with Weekly Engagement Report data. The daily usage values (or, if the customer is eligible to receive it, daily cost values) in the Day by Day breakdown do not always match the exact values in the web portal due to the way the values are rounded or when the calculations are performed.
- **Web Portal Access:** The customer must have access to the Oracle Utilities web portal to be able to follow the link or to click the bar chart and be redirected to the data browser in the web portal.
- **Rate Modeling:** Utility rates must be modeled by Oracle Utilities for cost information to appear. If rates are not modeled, energy use information is displayed by default. If the utility chooses to display cost information, rate modeling is required during initial program setup for an additional fee. See the [Oracle Utilities Opower Rates Engagement Cloud Service Product Overview](#) for more information.

User Experience - Day by Day Breakdown

The Day by Day Breakdown shows how much energy the customer spent each day of the previous week. For electricity customers, the bars in the graph represent the total electricity consumed on the corresponding day, and the blue bar represents the day on which the most was used. If a customer's rates are modeled, the cost per day can be displayed below each bar in the graph. Dual fuel versions of the communication include graphs for both electricity and gas use.

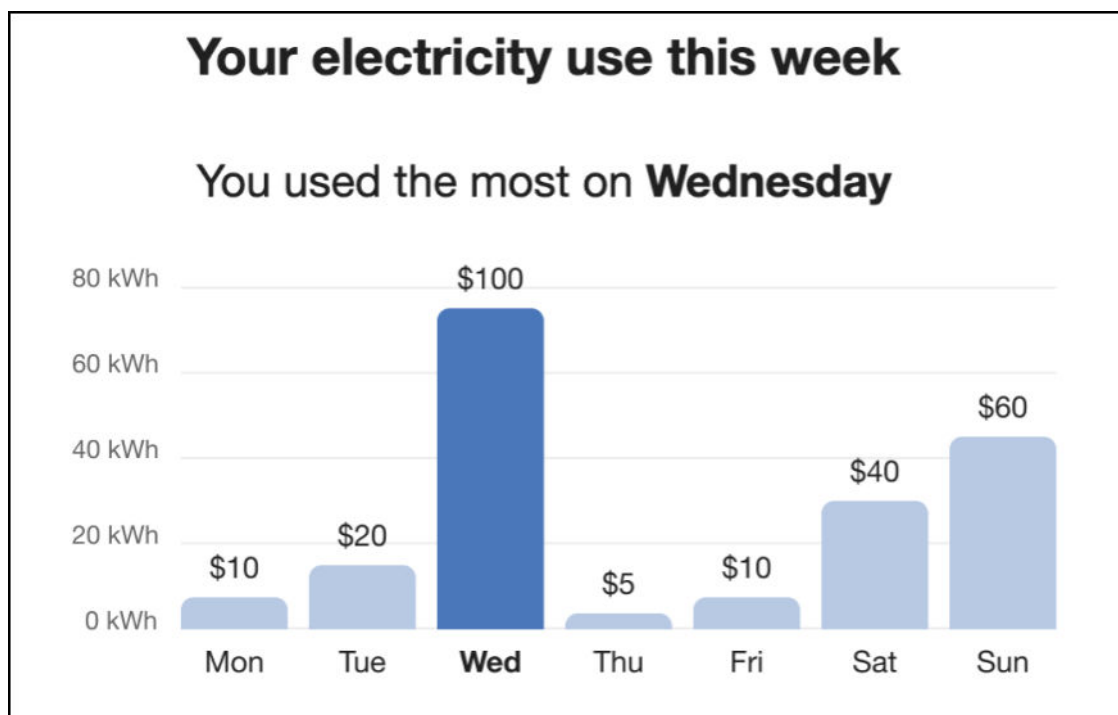
The module includes these components:

Title: The title specifies a fuel type and the fact that the date range is for a week.

Insight: The insight below the title indicates the day on which the customer used the most energy. The goal of this insight is to encourage the customer to think of ways to avoid using as much energy on the same day in future weeks.

Bar Chart: The bar chart shows the amount of energy used on each day for the previous week. The bar chart starts on Monday and ends on Sunday of the previous week. Each bar represents a day, with the day of the week displayed under the bar. The larger the bar, the higher the customer's energy usage for that day. The feature also reveals each day's usage relative to the other days in the same week.

To highlight the day on which the customer used the most energy, the bar that represents the highest usage is displayed in blue. This makes visual identification of the customer's highest usage clear, even at a glance.



User Experience - Hourly Breakdown

The Hourly Breakdown feature displays the hourly use for a customer's highest use day from the previous week. It allows customers to notice trends in their usage according to the time of day, which helps them identify ways they can save energy. Dual fuel versions of the communication include graphs for both electric and gas use.

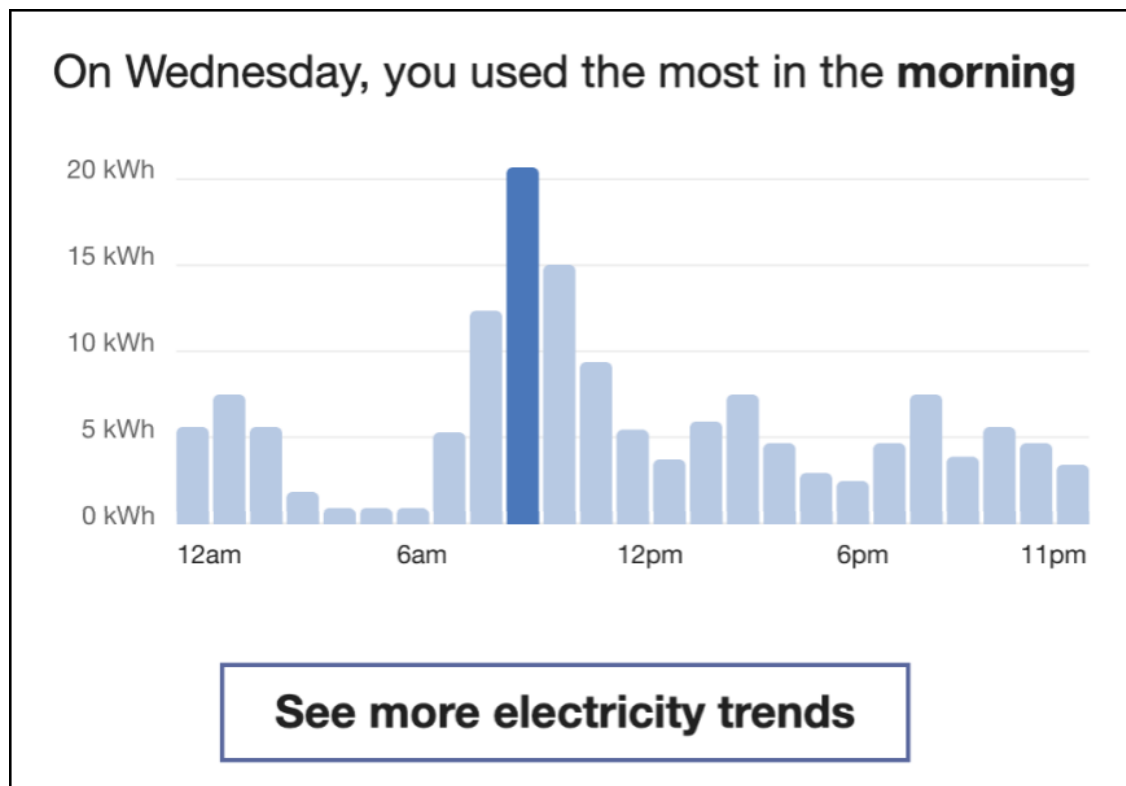
The module has these components:

Insight Statement: An insight statement at the top of the module indicates the hours of the customer's highest usage day during which they used the most energy.

Bar Chart: The Hourly Breakdown displays a bar chart showing a customer's usage throughout the day for the day that they used the most energy. This makes it easy for the customer to compare their highest hourly usage to their lowest, to notice patterns in their usage, and to begin to form habits to change these usage patterns. The bar chart plots hourly usage over a 24 hour period, starting and ending with 12 AM.

This chart gives customers a visual representation of the times of day that they use the most energy, and makes it easy for them to compare their highest hourly usage to their lowest. By making this information clear to the customer, it becomes easier for them to notice patterns in their usage, and enables them to begin to form habits to change these usage patterns.

See More Trends Button: Clicking this link takes customers to the Data Browser in the Oracle Utilities Opower web portal. If the customer is not signed in to the web portal, they are prompted to either sign in to their account or register if they have not previously done so.



Easy Open Module

The Easy Open module enables customers to easily access the [Home Energy Analysis](#) feature from their email communication without needing to sign in to their utility account. Removing this sign-in barrier increases engagement and customer satisfaction, and improves product functionality and the overall customer experience.

Requirements and Limitations

Requirements are as follows:

Related Cloud Services: In order to utilize this module, utilities must also have the [Digital Self Service - Energy Management Cloud Service](#). The Home Energy Analysis is part of this cloud service.

User Experience

The module has these components

Home Energy Analysis Statement: The statement below the header explains how completing the Home Energy Analysis can help the user find out where they are using the most energy, get personalized tips, and save money.

Start The Survey Button: This button directs users to the Home Energy Analysis.

This image shows an example of the Easy Open module:

Get personalized tips for your home

Whether you live in a single-family home, an apartment, or a condo, there are plenty of ways to save that you may not know about.

With our Home Energy Audit, you can answer a few questions to see where you're using the most energy, and find tips to help you start saving right away.

Start the survey

Email Footer Module

This module includes information that provides more context about the email, includes legal text, and enables users to unsubscribe from emails. The footer can also include links to the utility's mobile application and social media accounts.

User Experience

This module includes the following components:

Utility Contact Information: The utility's mailing address. The mailing address must appear due to CAN-SPAM regulations in the US and similar regulations abroad.

Utility Statement: This statement can be used to provide additional information about the email. Utilities can include information about how the amounts are calculated, whether the amounts are estimated, holidays that might impact the rate plan, or any other information they want to tell the customer. For example, "Savings are estimated for typical premises in the UtilityCo service area and your actual savings may vary. UtilityCo cannot guarantee the amount of money or energy you may save by implementing the recommended actions."

Manage Preferences: A link to the Web Portal page where a customer can edit their communication preferences.

Unsubscribe: A link to a page where customers can unsubscribe from emails. An unsubscribe link must appear due to CAN-SPAM regulations in the US and similar regulations abroad.

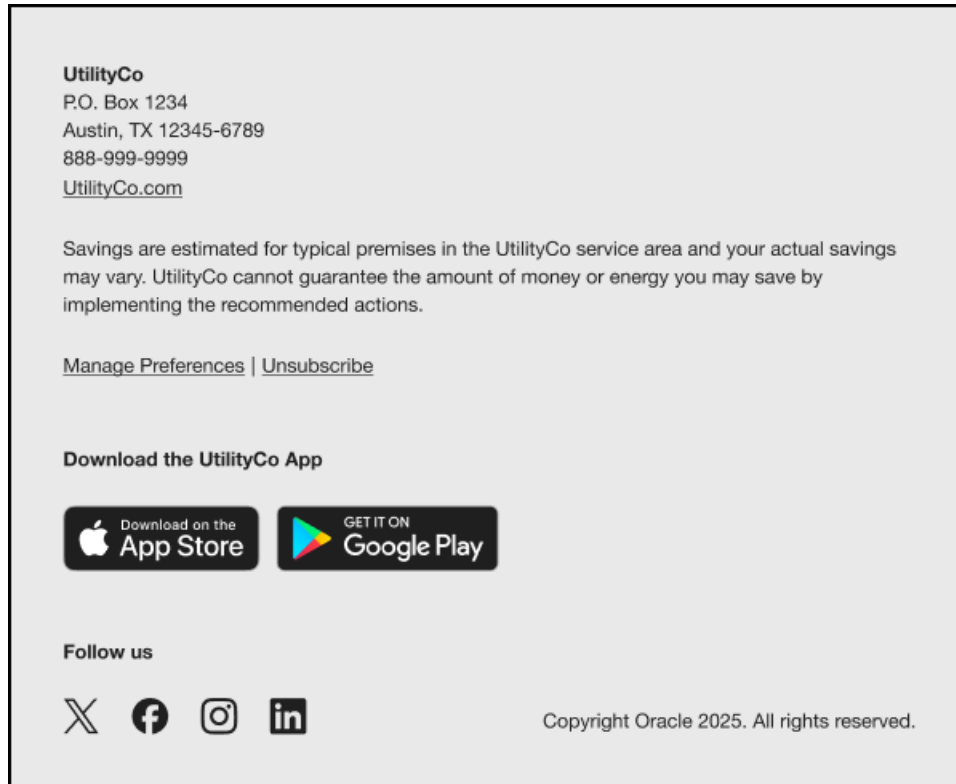
Note

Unsubscribing through the link provided in the email is permanent. Customers will never receive emails again and will be unable to opt back in at a later time. Opting out in this way also unsubscribes the customer from other Opower email communications, such as High Bill Alerts or email Peak Time Rebates. Also, note that unsubscribing through the email only unsubscribes the customer from email messages. It does not unsubscribe the customer from messages received through other channels, such as text or voice alerts.

Links to Mobile Apps and Social Media Accounts: If available, utilities can include links to their mobile applications and their social media accounts.

Legal Text: This is the copyright and any other legal text required by the utility and/or Oracle Utilities Opower.

This image shows an example of the footer:



Email Header Module and Subject Lines

These modules deliver high-level information to the customer and introduce users to their weekly emails. These modules are used in all weekly emails, and they include the following:

- **Subject lines and preview text:** The subject line text indicates that the email contains an update about the customer's energy use, and varies based on report type and fuel type. Preview text is the text that the customer sees before they open the email.
- **Header:** The email header includes the utility's logo, the customer name, and customer account number.

User Experience

A subject line is included in each email so the reader understands what the email is about before they open it. Preview text is also available, and allows the reader to hover over the email for additional information.

Subject Line: The subject lines are designed to engage customers. An example of a subject line is, "Michael, you spent less on electricity during peak hours last week (Sep 17 - Sep 23)".

Subject lines change based on the following criteria:

- Which email the customer receives.
- Whether the email contains cost or usage data.
- Whether the customer spent more or less for the covered time period.

Preview Text: This text is available when the customer hovers over their email, and provides them with more information about what they might expect to find in the email. For example, "Way to go! Check out savings tips to continue the trend."

Header: The header contains the following components:

- **Utility Logo:** The header includes a logo provided by the utility.
- **Account Number:** The header contains the full or partial account number of the customer.

This image shows an example of the header:



User Experience Variations

This section describes user experience variations in the Subject Line module.

Subject Line Variations for Weekly Engagement Report - Weekly Emails

Single Fuel Electric: The single fuel electric subject line varies depending on whether the customer *used* more, less, or about the same amount of electricity as the previous week. If rates are modeled, then the subject line focuses on how the customer *spent* more, less, or about the same amount of money on electricity as the previous week. The following examples show the electricity usage variations.

- "Weekly electricity update: You used X% more electricity"
- "Weekly electricity update: You used X% less electricity"
- "Weekly electricity update: Your electricity usage was about the same"

Single Fuel Natural Gas: The single fuel gas subject line varies depending on whether the customer *used* more, less, or about the same amount of gas as the previous week. If rates are modeled, then the subject line focuses on how the customer *spent* more, less, or about the same amount of money on gas as the previous week. The following examples show the gas usage variations.

- "Weekly gas update: You used X% more gas"
- "Weekly gas update: You used X% less gas"
- "Weekly gas update: Your gas usage was about the same"

Dual Fuel - Electric and Natural Gas: The dual fuel subject line varies depending on whether the customer *used* more, less, or about the same amount of gas and electricity as the previous week. If rates are modeled, then the subject line focuses on how the customer *spent* more, less, or about the same amount of money on gas and electricity as the previous week. The following examples show a few of the possible electricity and gas usage variations.

- "Weekly energy update: You used less X% electricity and Y% less gas"
- "Weekly energy update: You used X% less electricity and Y% more gas"
- "Weekly energy update: Your electricity and gas usage were about the same"

Email Spans Multiple Months: If the date range spans multiple months, then the month names are abbreviated to reduce the number of characters in the subject line. The format for the subject line in this situation is, "Your weekly energy breakdown for <month1 date1-month2 date2, year>: <Insight statement>".

- Example: "Your weekly energy breakdown for Feb 29-Mar 6, 2020: You used X% more electricity"

Email Spans Two Years: If the date range spans multiple years, then the first year is omitted and month names are abbreviated. The format for the subject line in this situation is, "Your weekly energy breakdown for <month date1-month2 date2, year2>: <Insight statement>".

- Example: "Your weekly energy breakdown for Dec 31-Jan 6, 2020: You used X% more electricity"

Subject Line Variations for Weekly Engagement Post-Bill Report Emails

The Weekly Engagement Post-Bill Report Email subject line indicates that the customer spent or used more, less, or about the same on their most recent bill as compared to the previous bill. The subject line indicates the type of energy in single fuel emails, such as electricity or gas, and says "energy" in dual fuel emails. Subject lines include:

- Hi <first name>, you used less <energy/electricity/gas> this bill period <date range>
- Hi <first name>, you used more <energy/electricity/gas> this bill period <date range>
- Hi <first name>, you used the same amount of <energy/electricity/gas> this bill period <date range>
- Hi <first name>, you spent less <energy/electricity/gas> this bill period <date range>
- Hi <first name>, you spent more <energy/electricity/gas> this bill period <date range>
- Hi <first name>, you spent the same amount of <energy/electricity/gas> this bill period <date range>

Subject Line Variations for TOU Load Shifting Emails

The subject lines and preview text for each TOU Load Shifting Report user experience are listed below.

Email Type and State	Usage Variation	Cost Variation
TOU Load Shifting Introduction Email	Subject Line: Hi <first name>, welcome to your weekly engagement report! Preview Text: Learn about how you are using energy, plus ways to save.	Subject Line: Hi <first name>, welcome to your weekly engagement report! Preview Text: Learn about how you are using energy, plus ways to save.
TOU Load Shifting Weekly Email Customer Spends Less	Subject Line: <first name>, you used less electricity during peak hours last week <date range> Preview Text: Way to go! Check out savings tips to continue the trend.	Subject Line: <first name>, you spent less on electricity during peak hours last week <date range> Preview Text: Way to go! Check out savings tips to continue the trend.

Email Type and State	Usage Variation	Cost Variation
TOU Load Shifting Weekly Email Customer Spends More	Subject Line: <first name>, you used more electricity during peak hours last week <date range> Preview Text: Check out savings tips for ways to reduce your energy usage.	Subject Line: <first name>, you spent more on electricity during peak hours last week <date range> Preview Text: Check out savings tips for ways to reduce your energy spending.
TOU Load Shifting Weekly Email Customer Spends About The Same	Subject Line: <first name>, you used about the same amount of electricity during peak hours last week <date range> Preview Text: Check out savings tips for ways to reduce your energy usage.	Subject Line: <first name>, you spent about the same on electricity during peak hours last week <date range> Preview Text: Check out savings tips for ways to reduce your energy spending.
TOU Load Shifting Post-Bill Report Email Customer Spends Less	Subject Line: Hi <first name>, you used less electricity during on-peak hours this bill period <date range, year> Preview Text: Great job! Check out what used the most energy during peak hours in your home.	Subject Line: Hi <first name>, you spent less on electricity during on-peak hours this bill period <date range, year> Preview Text: Great job! Check out what used the most energy during peak hours in your home.
TOU Load Shifting Post-Bill Report Email Customer Spends More	Subject Line: Hi <first name>, you used more electricity during on-peak hours the week of <date range, year> Preview Text: Check out what used the most energy during peak hours in your home.	Subject Line: Hi <first name>, you spent more on electricity during on-peak hours the week of <date range, year> Preview Text: Check out what used the most energy during peak hours in your home.
TOU Load Shifting Post-Bill Report Email Customer Spends About the Same	Subject Line: Hi <first name>, you used around the same amount of electricity during on-peak hours this bill period <date range, year> Preview Text: Check out what used the most energy during peak hours in your home.	Subject Line: Hi <first name>, you spent around the same amount of electricity during on-peak hours this bill period <date range, year> Preview Text: Check out what used the most energy during peak hours in your home.
TOU Load Shifting Emails during Pre-Season Transition	Subject Line: Hi <first name>, your seasonal peak hours are about to change <date> Preview Text: Check out the new hours and tips for saving energy.	Subject Line: Hi <first name>, your seasonal peak hours are about to change <date> Preview Text: Check out the new hours and tips for saving energy.
TOU Load Shifting Emails during Post-Season Transition	Subject Line: Hi <first name>, we just transitioned to new seasonal peak hours Preview Text: Review the new hours and discover more tips for saving energy.	Subject Line: Hi <first name>, we just transitioned to new seasonal peak hours Preview Text: Review the new hours and discover more tips for saving energy.

Subject Line Variations for Non-TOU Load Shifting Emails

The subject lines and preview text for each Non-TOU Load Shifting Report user experience are listed below.

Email Type and State	Usage Variation	Cost Variation
Non-TOU Load Shifting Introduction Email	Subject Line: <first name>, welcome to your weekly engagement report Preview Text: See your energy insights and peak time trends	Subject Line: <first name>, welcome to your weekly engagement report Preview Text: See your energy insights and peak time trends
Non-TOU Load Shifting Weekly Email Customer Spends Less	Subject Line: Weekly Engagement Report <date range>: You used X% less energy Preview Text: Way to go! Check out savings tips to continue the trend.	Subject Line: Weekly Engagement Report <date range>: You spent X% less on energy Preview Text: Way to go! Check out savings tips to continue the trend.
Non-TOU Load Shifting Weekly Email Customer Spends More	Subject Line: Weekly Engagement Report <date range>: You used X% more energy Preview Text: Check out savings tips for ways to reduce your energy usage.	Subject Line: Weekly Engagement Report <date range>: You spent \$X more on energy Preview Text: Check out savings tips for ways to reduce your energy spending.
Non-TOU Load Shifting Weekly Email Customer Spends About The Same	Subject Line: Weekly Engagement Report <date range>: Your energy use was about the same Preview Text: Check out savings tips for ways to reduce your energy usage.	Subject Line: Weekly Engagement Report <date range>: You spent about the same on energy Preview Text: Check out savings tips for ways to reduce your energy spending.
Non-TOU Load Shifting Post-Bill Report Email Customer Spends Less	Subject Line: Hi <first name>, you used less energy this bill period <date range, year> Preview Text: Great job! Check out what used the most energy in your home.	Subject Line: Hi <first name>, you spent less on energy this bill period <date range, year> Preview Text: Great job! Check out what used the most energy in your home.
Non-TOU Load Shifting Post-Bill Report Email Customer Spends More	Subject Line: Hi <first name>, you used more energy this bill period <date range, year> Preview Text: Check out what used the most energy during peak hours in your home.	Subject Line: Hi <first name>, you spent more on energy this bill period <date range, year> Preview Text: Check out what used the most energy in your home.
Non-TOU Load Shifting Post-Bill Report Email Customer Spends About the Same	Subject Line: Hi <first name>, your energy use was about the same this bill period <date range, year> Preview Text: Check out what used the most energy in your home.	Subject Line: Hi <first name>, your energy costs were about the same this bill period <date range, year> Preview Text: Check out what used the most energy in your home.

EV Load Shifting Insights in Weekly Engagement Report Emails

The Load Shifting Cloud Service, Electric Vehicle (EV) provides insights that can be included in Weekly Engagement Report emails and the Post-Bill Report emails to create an EV-specific experience for utility customers that own EVs.

Load shifting EV insights are provided within Load Shifting EV modules that are purpose-built to be included in the Weekly Engagement Report emails. These insights are designed to educate customers about their charging habits and encourage them to shift their charging to hours the utility prefers, such as when there is low demand on the grid or high availability of renewable energy.

These are the Load Shifting EV modules you can add to a Weekly Engagement Report email:

- [EV Habits Checklist in Weekly Engagement Report Emails Module](#): This module is included in the first EV-specific Weekly Engagement Report email the customer receives, and then again every six months.
- [EV Best Time Off-Peak in Weekly Engagement Report Emails Module](#): This module is included in the second EV-specific Weekly Engagement Report email the customer receives, and then again every six months.
- [EV Load Shifting Main Insight in Weekly Engagement Report Emails Module](#): This module is included in the Weekly Engagement Report Post-Bill Report email each month after the customer begins receiving the EV-specific emails.

Flat Rate Disaggregation Module

The Flat Rate Disaggregation module helps utility customers better understand how they are using electricity during each week or billing period, depending on which email the module is included in. By identifying the top three categories of energy consumption, the module brings visibility to which appliances use the most energy. The module displays the top 3 quantified end uses for the customer.

For utilities, this module provides a clear and actionable way to engage customers in helping them understand how energy is used in their household, and how they can shift usage to off-peak times to help relieve demand on the grid.

Quantified End Uses: End uses for which our disaggregation algorithms are able to provide an accurate estimate of how much of the appliance a customer was using during peak hours, and therefore, can be associated with a specific metric, such as kWh, percentage, or cost. The top three of these appliances are presented in the module.

Note

Whether a category is quantified is determined by the data that is available from the utility and by the disaggregation model.

Requirements

This section discusses customer requirements and limitations.

Customer Requirements

This table lists the customer requirements and limitations:

Category	Description
Data Requirements	AMI (hourly or more granular) data. There are additional AMI data requirements to show advanced insights such as appliance-level disaggregation. Contact your Delivery Team for more information.

Category	Description
Data History	AMI data for at least one period.
Data Coverage	The customer must meet the default scored AMI data threshold and may not exceed the maximum number of missed AMI reads for the billing period. Contact your Delivery Team for more information.

User Experience

This module includes the following components:

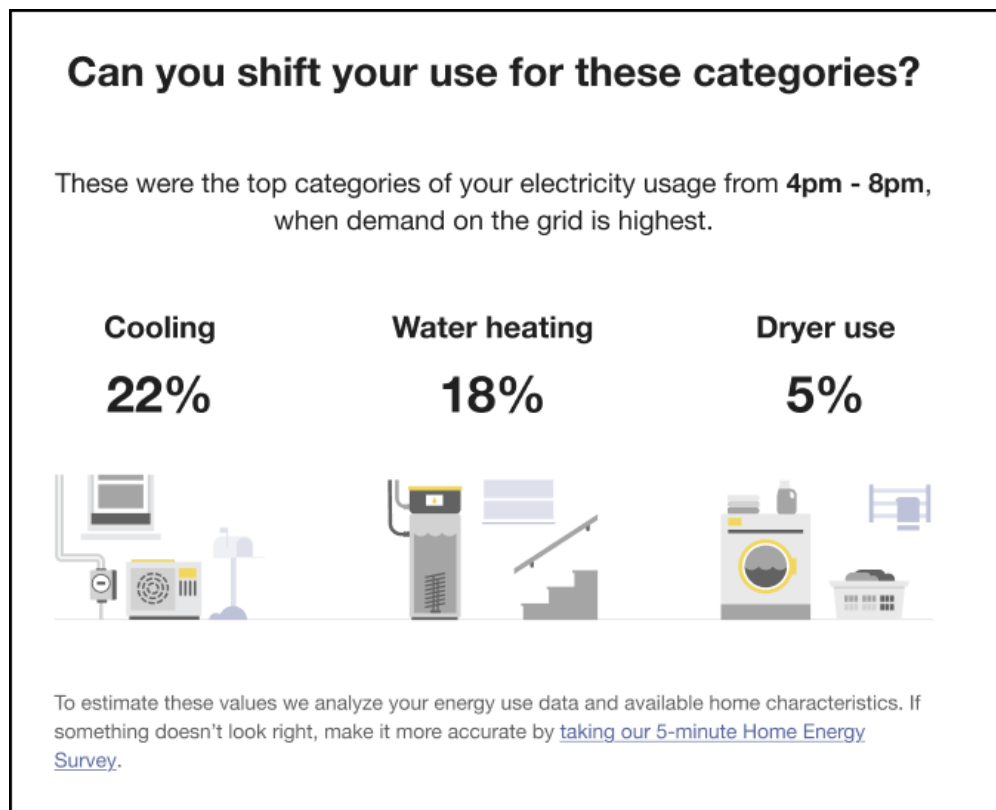
Heading: Displays a question prompting the customer to consider shifting their energy usage during peak periods. For example, “Can you shift your use for these categories?”

Peak Usage Statement: Explains the energy usage for the past week and highlights that the usage occurred during peak grid demand hours. For example, “These were the top categories of your electricity usage from 4pm - 8pm, when demand on the grid is highest.”

End Use Categories: Displays three categories of electricity usage, each including the category name, percentage of usage, and a supporting graphic.

Explainer Statement: Provides context on how the energy usage estimates are calculated and encourages the customer to improve accuracy by taking the Home Energy Survey. For example, “To estimate these values we analyze your energy use data and available home characteristics. If something doesn't look right, make it more accurate by taking our 5-minute Home Energy Survey.”

This is an example of the Flat Rate Disaggregation module:



User Experience Variations

This section discusses the user experience variations in the Flat Rate Disaggregation module.

Cost Variation

When the module is included in a cost version of the Post-Bill Report email, it varies as follows:

Header: The header tells the user how much money they spent instead of their percentage of usage.

End Use Categories: The cost is displayed instead of the usage percentage.

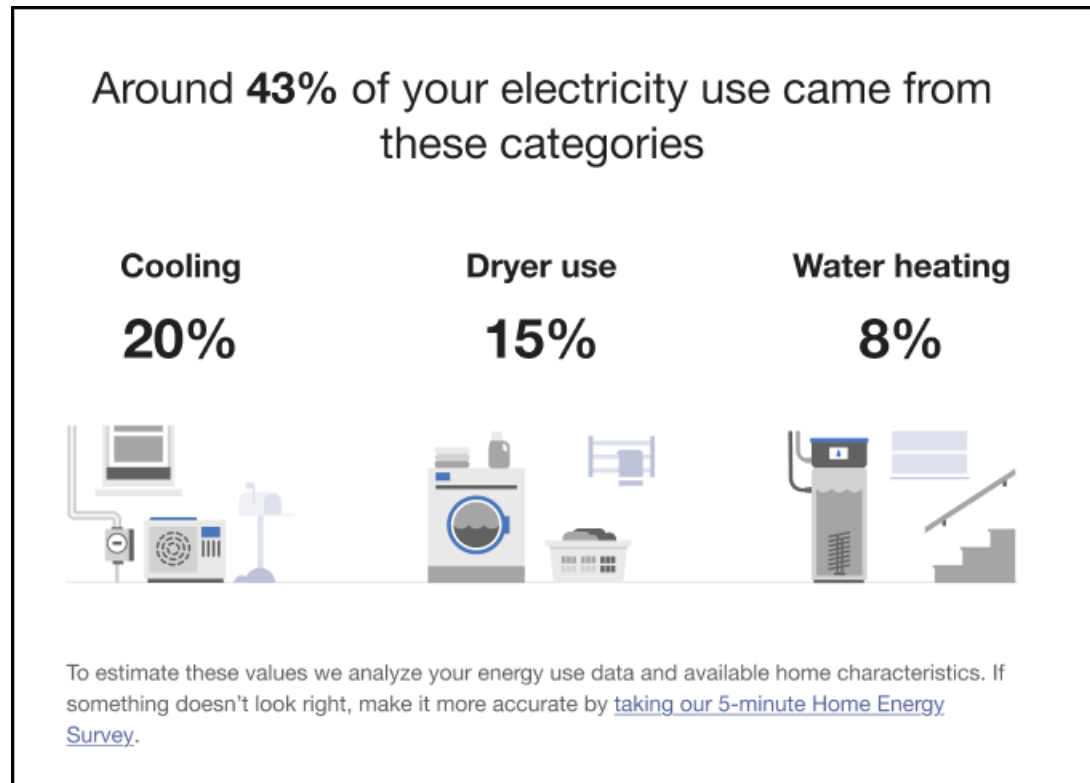


Post-Bill Variation

When included in the Post-Bill Report email, the module varies as follows:

Header: The statement tells the user how much of their energy use came from their top 3 categories.

Peak Usage Statement: This statement is omitted from the module in the Post-Bill Report email.



Hourly Usage Module

This module educates customers about how much electricity they use during peak hours and encourages them to shift tasks to off-peak hours to save money. The module supports partial-peak periods, multiple peak periods in a day.

Requirements and Limitations

This section discusses utility and customer requirements and limitations.

Customer Requirements

This table lists the customer requirements:

Category	Description
Data Requirements	AMI (hourly or more granular) data.
Data History	AMI data for the last 5 or 7 days, depending on whether the utility has peak hours on the weekends.

Category	Description
Data Coverage	The default requirement is: 50% read coverage for the week covered by the report. Note This product does not differentiate between estimated and non-estimated reads. Both types of reads are supported.

Limitations

These are the limitations:

- **Zero Usage:** If a customer hasn't used any electricity during the week, several checks are completed to determine whether to hide modules, or to fail the entire email communication. The checks are as follows:
 - **Introduction Email:** If the Hourly Usage module has 0 usages, exclude that module but send the communication.
 - **Weekly Email:** If the Weekly Comparison module has 0 usages, the communication is not sent. If the Hourly Usage module has 0 usages, the module is excluded from the communication.
 - **Emails Including the Transition Module:** The Weekly Email can contain the Transition module when there is a seasonal rate transition. In cases where the emails include the pre-transition version of the module, if the Weekly Email module has 0 usages, the module is excluded from the communication. If the Hourly Usage module has 0 usages, the module is excluded from the communication.
- **Rates with no on-peak period in a given season:** The module shows non-peak usage data when no on-peak TOU period is present. See the User Experience Variations.

User Experience

This module includes the following components:

Introduction Statement: This statement directs customers to the graph that depicts how they used energy this week. Below this statement is a question that asks them what parts of their routine they can do during off-peak hours, which encourages them to shift tasks to lower-cost times of the day. For example, "Here's how you used electricity this week".

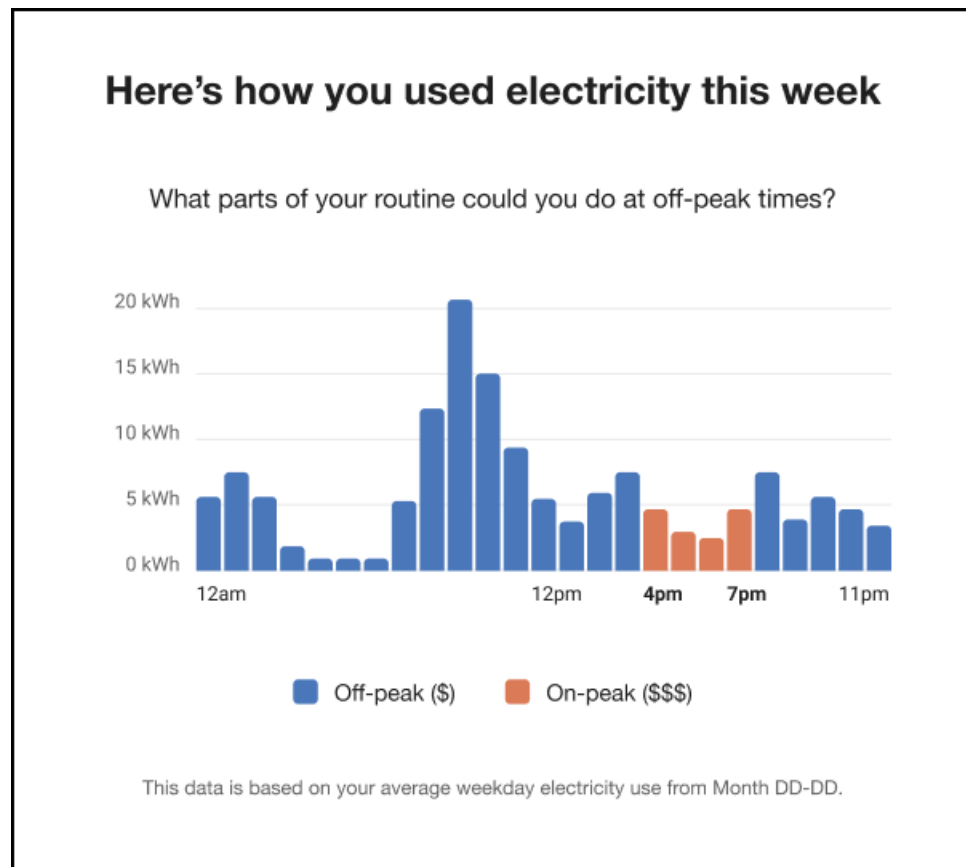
Hourly Usage Bar Chart: This component shows the customer's average hourly electricity costs during the previous week. The chart highlights peak hours to draw attention to how the customer's average electricity costs during peak hours compare to their average electricity costs during off-peak hours.

Date Range Statement: A statement below the chart identifies the dates used to determine the hourly average usage. For example, "This data is based on your average weekday electricity use from May 12 - 19."

Note

This module was designed to be used in conjunction with the TOU 101 module.

This image shows an example of the Hourly Usage module:



User Experience Variations

This section discusses the user experience variations in the Hourly Usage module.

Partial Peak Periods

For utility companies with partial-peak periods, the module displays off-peak, partial-peak, and peak hours using different colors within the bar chart.

Multiple Peak Periods

For utility companies with multiple peak periods each day, the module displays all peak periods in the chart.

Data Overlapping the Seasonal Transition Date

Costs cannot be calculated for this module if the seasonal transition occurs within the module look back period. The behavior of the module is impacted by whether or not the peak hours data has changed.

Peak hours have changed: If peak hours changed at the season transition, and the look-back period for a given module overlaps the season transition date, then the module fails and the individual module is not included in the TOU Load Shifting Report emails. The report will still be sent with the remaining modules.

Peak hours have not changed: If the customer's peak hours have not changed, one of the following variations occurs:

- If peak hours have not changed in a period that overlaps the seasonal transition, the seasonal transition module is shown in usage form.
- If peak hours have not changed in a period that overlaps the seasonal transition, *and non-peak data for other data changing modules in the report have changed during the season transition date*, then all of the report modules are shown in usage form. Costs are not calculated or shown.

Introduction Module

The Introduction module is used at the top of most emails and sets the context for the customer's report.

User Experience

This section describes the module in the TOU Load Shifting Report emails. The module includes the following components:

Welcome Message: The welcome message appears at the top of the module and introduces customers to the email program. The message includes the customer's first name, and tells them that the email includes information about how they used electricity during the past week or month. This message varies depending on the email in which it is included:

- **Introduction email:** The welcome message reads, "<Customer Name>, Welcome to your <program name>".
- **Weekly email:** The welcome message reads, "<Customer Name>, Here's how you used electricity this past week".
- **Post-Bill Report email:** The welcome message reads, "<Customer Name>, Here's how you used electricity this past bill period".

Date Range: The date range covered by the email is listed next.

Image: The welcome image appears just below the header.

This image shows an example of the Demand Introduction module:



Load Shifting Collective Benefit Module

The Collective Benefit module provides customers with information about the collective impacts of their peak-use reduction or load shifting. The module provides a rotating series of information that is aimed at increasing customer motivation to decrease their peak usage without sacrificing customer satisfaction.

This module can be included in the Post-Bill Report or in the Peak Usage Summary email, and rotates between 6 different messages that can be selected and configured by the utility. There are 8 available messages for the utility to choose from. For information about these different variations, [contact your Delivery Team](#).

Each selected message should run for approximately four weeks, ensuring it is included in each customer's Post-Bill Report or Peak Usage Summary email for the month. Then a new message is selected to run for approximately 4 weeks. This cadence typically allows for each of the 6 selected messages to be shown twice over the course of a year.

User Experience

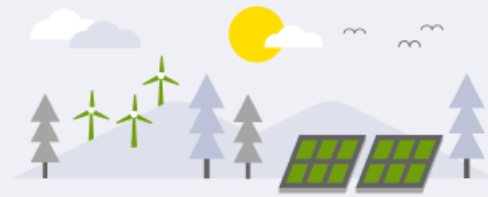
Each variation of the Collective Benefit module includes the following components. This example illustrates the renewable energy variation.

Header: The module header reads "Benefit from renewable energy".

Image: The image appears just below the header and depicts renewable energy resources such as solar and wind.

Insight Message: The insight message explains how shifting usage to off-peak hours can help to lower carbon emissions, and provides details about how other customers have shifted their usage, and the results of that shift. For example, "Time of Use rates support a cleaner power grid by encouraging electricity use when renewable resources, such as solar or wind, are more available. If you shift or reduce energy use during on-peak hours, we can all rely more on renewables—and less on fossil fuels."

Benefit from renewable energy



Time of Use rates support a cleaner power grid by encouraging electricity use when renewable resources, such as solar or wind, are more available. If you shift or reduce energy use during on-peak hours, we can all rely more on renewables—and less on fossil fuels.

Peak Period Disaggregation Module

This module provides customers with insights about what appliances they use the most during peak hours each week, when included in the weekly email, and each bill period when included in the Post-Bill Report email. The disaggregation highlights up to six customer end uses to provide customers with a holistic view of their usage. End uses are split into quantified and unquantified groups based primarily on the level of detail we have about the appliance use.

Quantified End Uses: Quantified categories include end uses for which our disaggregation algorithms are able to provide an accurate estimate of how much of the appliance a customer was using during peak hours, and therefore, can be associated with a specific metric, such as kWh, percentage, or cost. The top three of these appliances are presented in the top portion of the disaggregation breakdown and accentuated with images.

Unquantified End Uses: The unquantified section includes end use categories that we can successfully detect if a customer used them during peak hours, but we cannot provide an accurate estimate of how much the customer was using the appliance during peak hours. These appliances are presented in the bottom portion of the disaggregation breakdown.

Together, the quantified and unquantified groups provide the customer with a comprehensive picture of what contributes to their peak hour energy use.

Note

Whether a category is quantified or unquantified is determined by the data that is available from the utility and by the disaggregation model.

The disaggregation is followed by a call to action encouraging the customer to complete or update their Home Energy Analysis. The goal of this module is to raise the customer's awareness of which of their quantified and unquantified appliances contribute the most to on-peak energy use so that they can take action to save energy during on-peak billing periods.

Requirements and Limitations

This section discusses customer requirements and limitations.

Customer Requirements

This table lists the customer requirements and limitations:

Category	Description
Data Requirements	AMI (hourly or more granular) data. There are additional AMI data requirements to show advanced insights such as appliance-level disaggregation. Contact your Delivery Team for more information.
Data History	AMI data for at least one period.
Data Coverage	The customer must meet the default scored AMI data threshold and may not exceed the maximum number of missed AMI reads for the billing period. Contact your Delivery Team for more information.

Limitations

These are the limitations:

- **Seasonal Transition:** Costs cannot be calculated for this module if the data period overlaps the seasonal transition date.

User Experience

This module includes the following components:

Header: The header introduces the customer to the module by telling them how much of their usage was associated with their top three appliances during on-peak hours. For example, "Around **\$80** of your **on-peak** electricity costs came from these categories".

Quantified category breakdown: The quantified category breakdown displays up to three of the customer's top use categories during on-peak hours for the current bill period, and includes the category name, amount spent, and an image. Quantified appliances are ordered from highest to lowest usage amount. Possible quantified uses include:

- Heating
- Cooling
- EV charging
- Dryer use
- Water heating

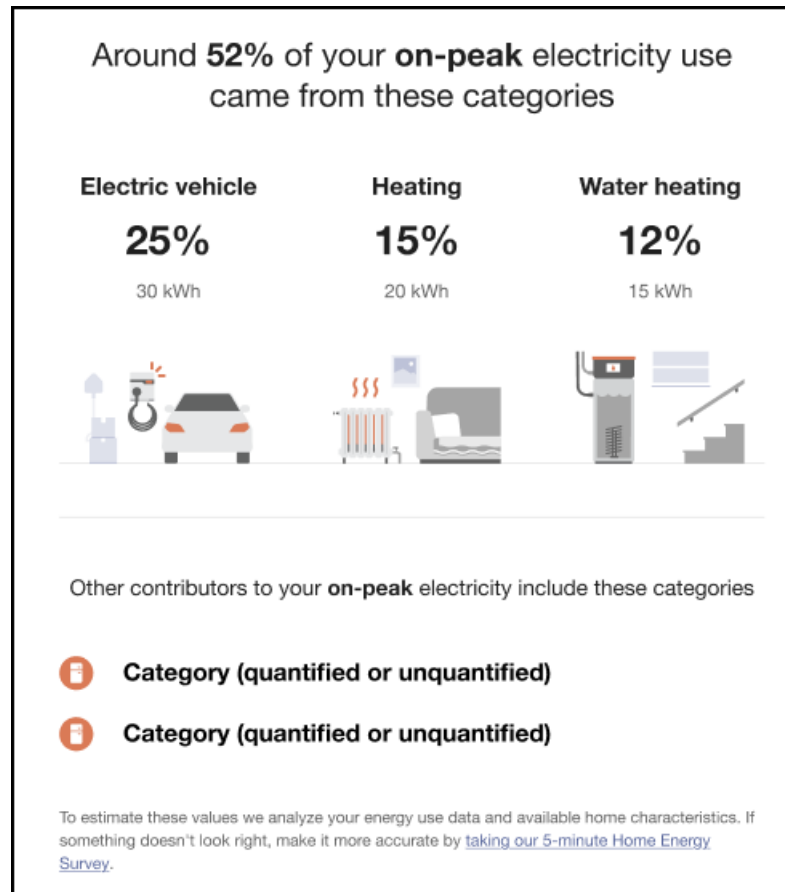
Additional Uses Header: If there are additional categories that contribute to usage, they are listed here. The categories can be quantified or unquantified. The module displays a section for additional use categories, and starts with a header, which draws the customer's attention to other uses that contributed to their usage.

Additional Use Categories: If available, this portion of the module displays up to three of the customer's additional contributors, which can be quantified or unquantified. Quantified uses are listed above, while unquantified appliances can include:

- Dishwasher use
- Oven use

Home Energy Analysis call-to-action statement: Below the end use categories, a statement explains how the values presented in the module are determined, and tells the user that they can help the utility provide them with more accurate estimates by completing the Home Energy Analysis. For example, "To estimate these values we analyze your energy use data and available home characteristics. If something doesn't look right, make it more accurate by taking our 5-minute Home Energy Survey." Utilities can provide a link to their home energy survey within the statement.

This image shows an example of the module:



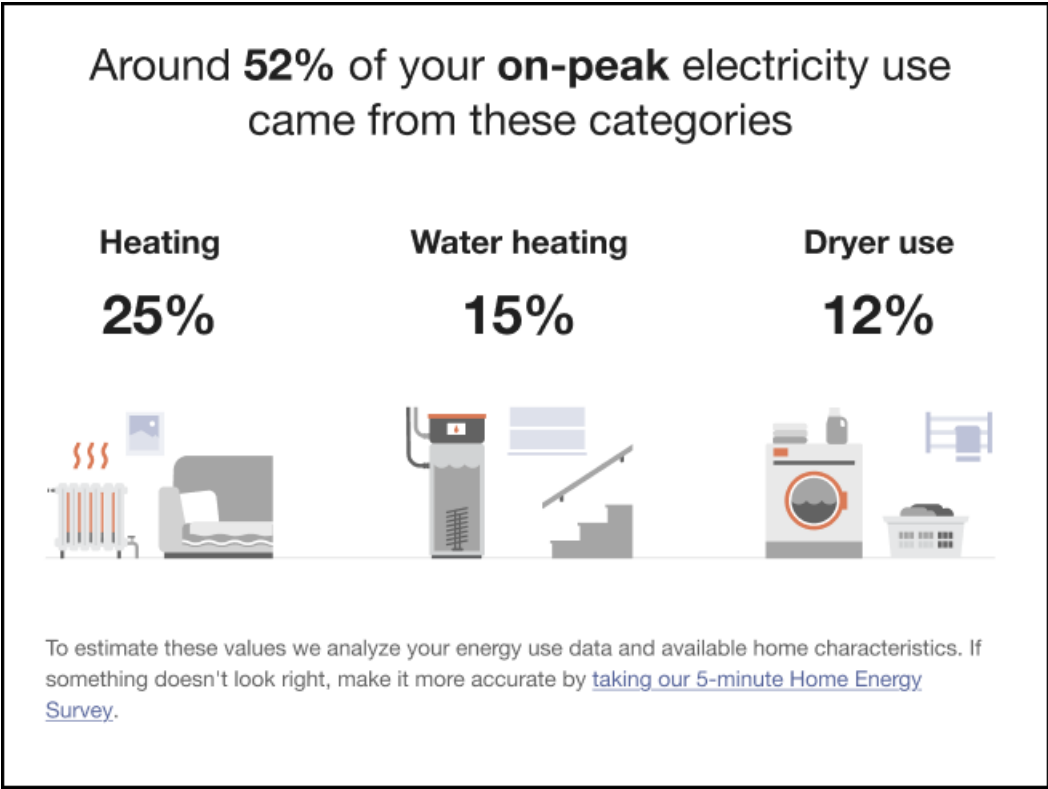
User Experience Variations

This section discusses the user experience variations in the Peak Period Disaggregation module.

When Included in the Post-Bill Report

The module varies as follows when included in the Post-Bill Report.

Header: The header introduces the customer to the module by telling them how much of their usage this month was associated with their top three appliances during on-peak hours. For example, "Around **52%** of your **on-peak** electricity use came from these categories".



Header

The header varies by the data state and number of appliances.

Quantified and unquantified category behaviors operate independently from each other, with the exception of instances where there are no quantified use categories to report.

Header Type	Cost or Usage	Property Name / Description	Usage
Quantified Header	Usage	Usage - multiple-quantified-categories	Around % of your on-peak electricity use came from these categories:
		Usage - one quantified category	Around % of your on-peak electricity use came from <category>
	Cost	Cost - multiple-quantified-categories	Around \$ of your on-peak electricity costs came from these categories:
		Cost - one quantified category	Around \$ of your on-peak electricity costs came from <category>
	Not applicable	No quantified category	Section is omitted from the report.
Unquantified Header	Not applicable	Quantified categories	Other contributors to your on-peak electricity use include:

Header Type	Cost or Usage	Property Name / Description	Usage
	No quantified categories present	No quantified categories present	Contributors to your on-peak electricity use include:
	No unquantified categories	No unquantified categories	Section is omitted from the report.

Zero Quantified Use Categories and One or More Unquantified Use Categories

If there are no quantified use categories, the quantified portion of the disaggregation breakdown is omitted from the report.

One Quantified Use Category and Zero Unquantified Use Categories

If there is a single quantified use and there are no unquantified use categories, the quantified heading modifies to address the single data state, and the single quantified use is highlighted with a centered image. The unquantified portion of the disaggregation breakdown is omitted from the report.

Two or More Quantified Use Categories and Zero Unquantified Use Categories

If there are multiple quantified use and there are no unquantified use categories, the unquantified portion of the disaggregation breakdown is omitted from the report.

More Than Three Quantified Use Categories

If there are more than three quantified appliances available, the top three highest uses are listed in the quantified section. Any remaining quantified appliances are added to the alphabetical list of non-quantified uses. For example, EV charging will be listed in the unquantified usage list for a client if it is the quantified appliance category for a customer with quantified appliance data for Cooling, Dryer Use, Water Heating, and EV Charging.

No Quantified or Unquantified Use Categories

If there are no appliances in both the quantified and unquantified sections, the module will be hidden. No fallback message is displayed.

Data Overlapping the Seasonal Transition Date

Costs cannot be calculated for this module if the seasonal transition occurs within the module look back period. The behavior of the module is impacted by whether or not the peak hours data has changed.

Peak hours have changed: If peak hours changed at the season transition, and the look-back period for a given module overlaps the season transition date, then the module fails and the individual module is not included in the email. The report will still be sent with the remaining modules.

Peak hours have not changed: If the customer's peak hours have not changed, one of the following variations occurs:

- If peak hours have not changed in a period that overlaps the seasonal transition, the Transition module is shown in usage form.
- If peak hours have not changed in a period that overlaps the seasonal transition, *and non-peak data for other data changing modules in the report have changed during the season*

transition date, then all of the report modules are shown in usage form. Costs are not calculated or shown.

Post-Bill Always On Module

The Post-Bill Always On module tells customers how much of their electric use is associated with things that are always on in their home. The amount, which is always displayed as a percentage, is due to electricity that is used by some appliances and electronics that use energy simply because they are plugged in.

The amount is calculated using the Always-on Disaggregation Model, which estimates the electricity consumption associated with appliances and electronics that consistently draw power even when they are off or in sleep mode, such as set-top boxes, gaming consoles, security systems, and digital assistants. It also estimates consumption for appliances which are always running, such as refrigerators.

At the end of the module, utilities can also direct users to a utility website that explains always-on usage.

Requirements and Limitations

Requirements and limitations are as follows:

- **Fuel Type:** Because this module is specific to electricity use, it is included only in electric and dual fuel communications, and is excluded from gas-only communications.
- **Always-On Insights:** There are additional data requirements to show advanced insights such as always-on usage. Contact your Delivery Team for more information.

User Experience

This module includes the following components:

Header: The module header includes a plug icon, and tells the user that this data will show them how much energy their always-on appliances and electronics used during this bill period. The header reads, "Your always-on use".

Insight Statement: The insight statement indicates the percentage of energy that is considered always-on usage for the bill period, and explains what always-on usage is. The default statement reads:

About <X%> of your electricity costs came from always-on energy use
- the small amount of power some appliances and electronics draw
simply because they are plugged in. Learn more.

Learn More Link: Note that the Learn more link at the end of the statement can be removed if the utility does not have an appropriate website to direct customers to that can explain always-on usage in more detail.

The image below is an example of the Post Bill Always On module:



Your always-on use

About 15% of your electricity costs came from always-on energy use—the small amount of power appliances and electronics draw simply because they are plugged in. [Learn more.](#)

Post-Bill End Uses Module

The Post-Bill End Uses module breaks down how energy was used during the current bill period, and shows the customer what their top energy use categories are. Depending on the disaggregation modules the utility is using, the fuel type of the customer, and the customer data that is available, the module can display two or three top uses, and can also list additional categories that contributed to the customer's energy use.

The module explains to the customer how we are able to calculate the breakdown, and directs them to utility resources that can help them find additional information.

Requirements and Limitations

Requirements and limitations are as follows:

- **Data Requirements:** A complete bill for the previous month must be available.
- **Appliance Disaggregation:** There are additional AMI data requirements to show advanced insights such as appliance-level disaggregation. Contact your Delivery Team for more information.

User Experience

This module includes the following components:

Top Uses Statement: The top uses statement at the top of the module indicates how much of the customer's energy was used by their top categories. For example, "These top categories made up \$123 of your energy usage this bill".

Personalized Breakdown: The personalized breakdown can show up to three top end-use categories. Each category includes the following elements:

- **Category Name:** Each category includes a name, such as Cooling, Water Heating, or Electronics. The categories that are available depend on which disaggregation model is used.
- **Category Cost:** Each category shows a cost rounded to the nearest whole dollar. The costs represent the major portions of a customer's entire energy use, and are not meant to add up to the customer's total bill. The breakdown can also show percentages if cost information is not available.

- **Category Icon:** Each category is paired with a graphic so that customers have a visual reference and can more quickly understand the meaning of the category.
- **Category Order:** The categories are shown from left to right, in the order of most expensive to least expensive.

Additional Categories: Below the personalized breakdown, up to 9 additional categories can be listed. Each includes a small icon to the left, the category name, and the cost or percentage to the right.

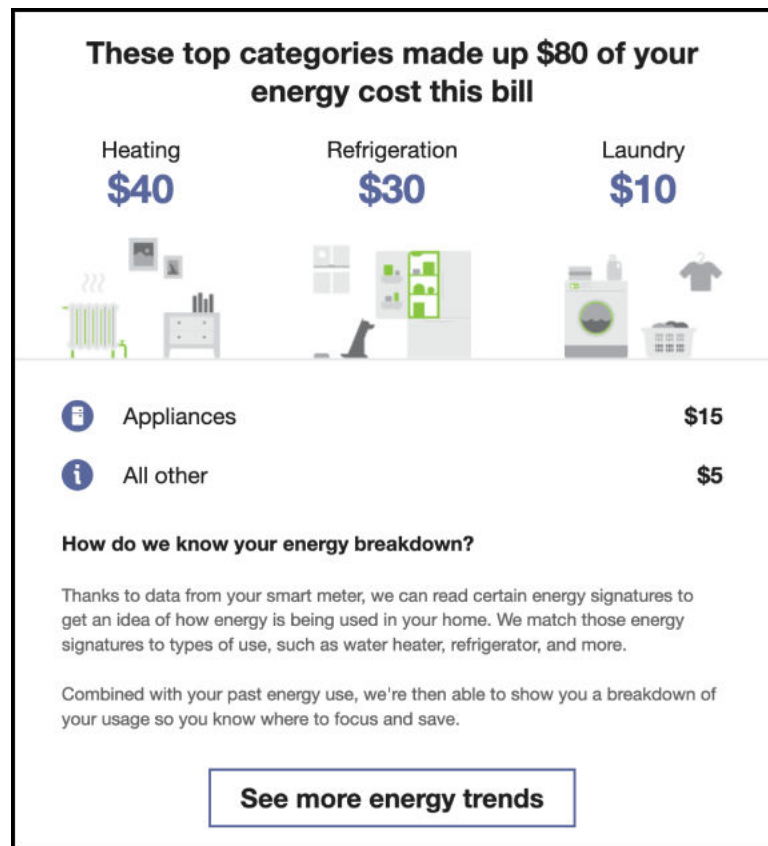
Energy Breakdown Statement: Below the use categories, a statement tells the customer how we know about their energy breakdown. The statement starts with the heading, "How do we know your energy breakdown?" and is followed by this text:

Thanks to data from your smart meter, we can read certain energy signatures to get an idea of how energy is being used in your home. We match those energy signatures to types of use, such as water heater, refrigerator, and more.

Combined with your past energy use, we're then able to show you a breakdown of your usage so you know where to focus and save.

See More Energy Trends Button: This button should direct users to a page in the utility's website, which could differ depending on the products and additional cloud services that the utility has.

The image below is an example of the Post Bill End Uses module:



Post-Bill Report Load Shifting Bill Comparison Module

This module compares the customer's costs or usage during peak hours in the current bill period to their spending during peak hours in the previous bill. It provides feedback based on how the customer's costs in the current bill period compare to those of the previous bill.

Requirements and Limitations

This section discusses customer requirements and limitations.

Customer Requirements

This table lists the customer requirements:

Category	Description
Data Requirements	- AMI (hourly or more granular) data. - Customers must be eligible for the Hourly Disaggregation service.
Data History	AMI data for the last two months is required to show the bill-by-bill comparison.
Data Coverage	50% read coverage for the bill covered by the report. 50% read coverage for the previous report. Note This product does not differentiate between estimated and non-estimated reads. Both types of reads are supported.

Limitations

These are the limitations:

- Post-Bill Report Email Only:** This module is only available as part of the Post-Bill Report email.
- Hourly Disaggregation Service:** Customers must be eligible for the Hourly Disaggregation service in order to receive this module as part of the Post-Bill Report email.

User Experience

This module includes the following components:

Insight Statement: The insight message above the bar graph tells the customer how their current energy cost compares to their previous bill. The insight statement varies depending on how much the customer spends during on peak hours, as follows:

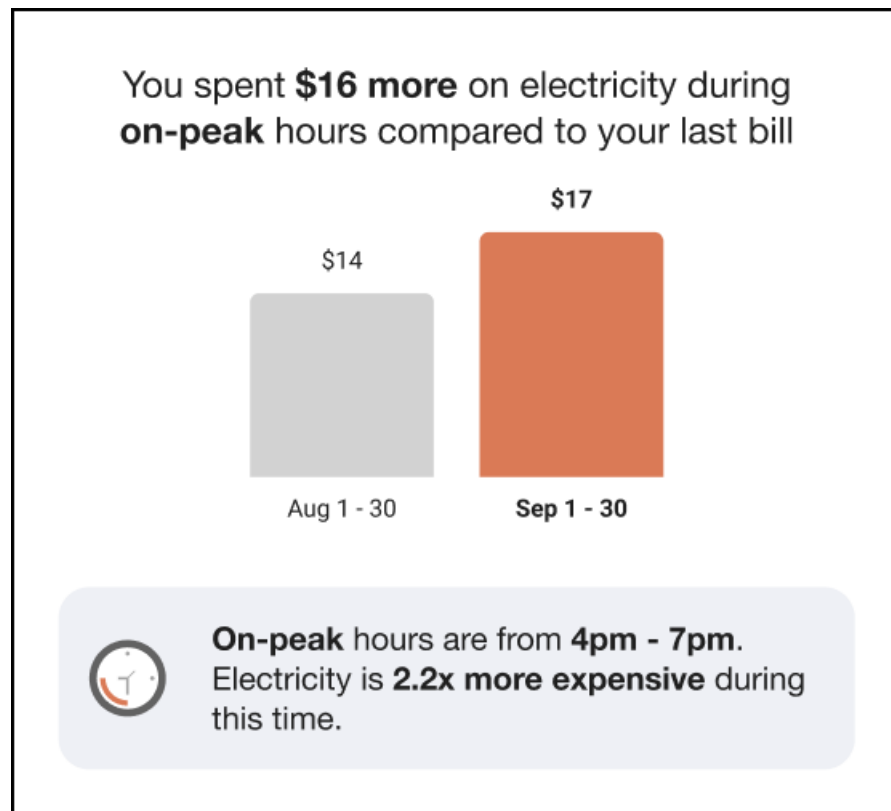
- Less than on-peak hours for the previous bill:** You spent <\$X> less on electricity during on-peak hours compared to your last bill".
- More than on-peak hours for the previous bill:** "You spent <\$X> more on electricity during on-peak hours compared to your last bill".

- **About the same amount as on-peak hours for the previous bill:** "You spent about the same amount on electricity during on-peak hours compared to your last bill".

Bar Graph: The bar graph compares the customer's on-peak energy costs during the previous bill to their spending during on-peak hours in current bill. Above each bar, the total amount spent during peak hours for the bill period is displayed. Below each bar, the dates define the period associated with the data. For example, "Aug 1 - 30".

Peak Hours Explainer: The explainer includes a graphic that depicts a clock with peak hours, and text that defines on-peak hours and rates for the current bill period. The explainer message changes based on the on-peak hours and rates for the billing period. For example, "On-peak hours are from 4pm - 7pm. Electricity is 2.2x more expensive during this time."

This image shows an example of the Post-Bill Report Bill Comparison Module:



User Experience Variations

This section discusses the user experience variations in the Post-Bill Bill Comparison module.

Usage Variation

If the email is designed to display usage instead of cost, the module displays the following:

- **Insight Statement:** Depending on the usage, one of these insight statements is used:
 - **Used less electricity:** You used <XX% less> electricity during on-peak hours compared to your last bill.
 - **Used more electricity:** You used <XX% more> electricity during on-peak hours compared to your last bill.

- **Used about the same electricity:** You used about the same amount of electricity during on-peak hours compared to your last bill.
- **Bar Labels:** The labels above the bars display the usage in kWh.

Peak Hours Explainer Text

The explainer message varies based on the on-peak data state, hours, and rates for the billing period.

- **Peak hours on weekdays only, one peak period:** On weekdays, on-peak hours are from <Xpm - Xpm>. Electricity is [XX] more expensive during this time.
- **Peak hours on weekdays only, two peak periods:** On weekdays, on-peak hours are from <Xam - Xam and Xpm - Xpm>. Electricity is <XX> more expensive during these times.
- **Peak hours same on all days, one peak period:** On-peak hours are from <Xpm - Xpm>. Electricity is <X.X> more expensive during this time.
- **Peak hours same on all days, two peak periods:** On-peak hours are from <Xam - Xam and Xpm - Xpm>. Electricity is <X.X> more expensive during these times.
- **Peak hours different on weekends and weekdays, one peak period each:** On-peak hours are from <Xpm - Xpm> on weekdays and <Xpm - Xpm> on weekends. Electricity is <X.X> more expensive during these times.
- **Peak hours different on weekends and weekdays, more than one peak period for each:** On-peak hours are from <Xam - Xam> and <Xpm - Xpm> on weekdays and <Xpm - Xpm> on weekends. Electricity is <X.X> more expensive during these times.

Previous Month's Data Unavailable

If data for the previous month's bill is not available, the module is not included in the email.

Data Overlapping the Seasonal Transition Date

Costs cannot be calculated for this module if the seasonal transition occurs within the module look back period. The behavior of the module is impacted by whether or not the peak hours data has changed.

Peak hours have changed: If peak hours changed at the season transition, and the look-back period for a given module overlaps the season transition date, then the module fails and the individual module is not included in the email. The report will still be sent with the remaining modules.

Peak hours have not changed: If the customer's peak hours have not changed, one of the following variations occurs:

- If peak hours have not changed in a period that overlaps the seasonal transition, the seasonal transition module is shown in usage form.
- If peak hours have not changed in a period that overlaps the seasonal transition, *and non-peak data for other data changing modules in the report have changed during the season transition date*, then all of the report modules are shown in usage form. Costs are not calculated or shown.

Post-Bill Report Bill Comparison Module

The Post-Bill Report Bill Comparison module provides customers with an at-a-glance look at their energy costs or usage this period compared to the previous period. Using icons and bar

charts, this module is graphic and simple, making it easy to understand whether the customer did better or worse than the previous period. If the customer receives the cost version, a dollar amount is associated with each bar chart. If the customer receives the usage version, their energy usage is displayed in kWh for electricity and therms for gas.

Note

The Post-Bill Report Bill Comparison module is not included in Cost Tracker Report emails.

Requirements and Limitations

Requirements are as follows:

- **Data Requirements:** Two months of billing history is required in order to show the comparison between billing periods.

User Experience

This module includes the following components:

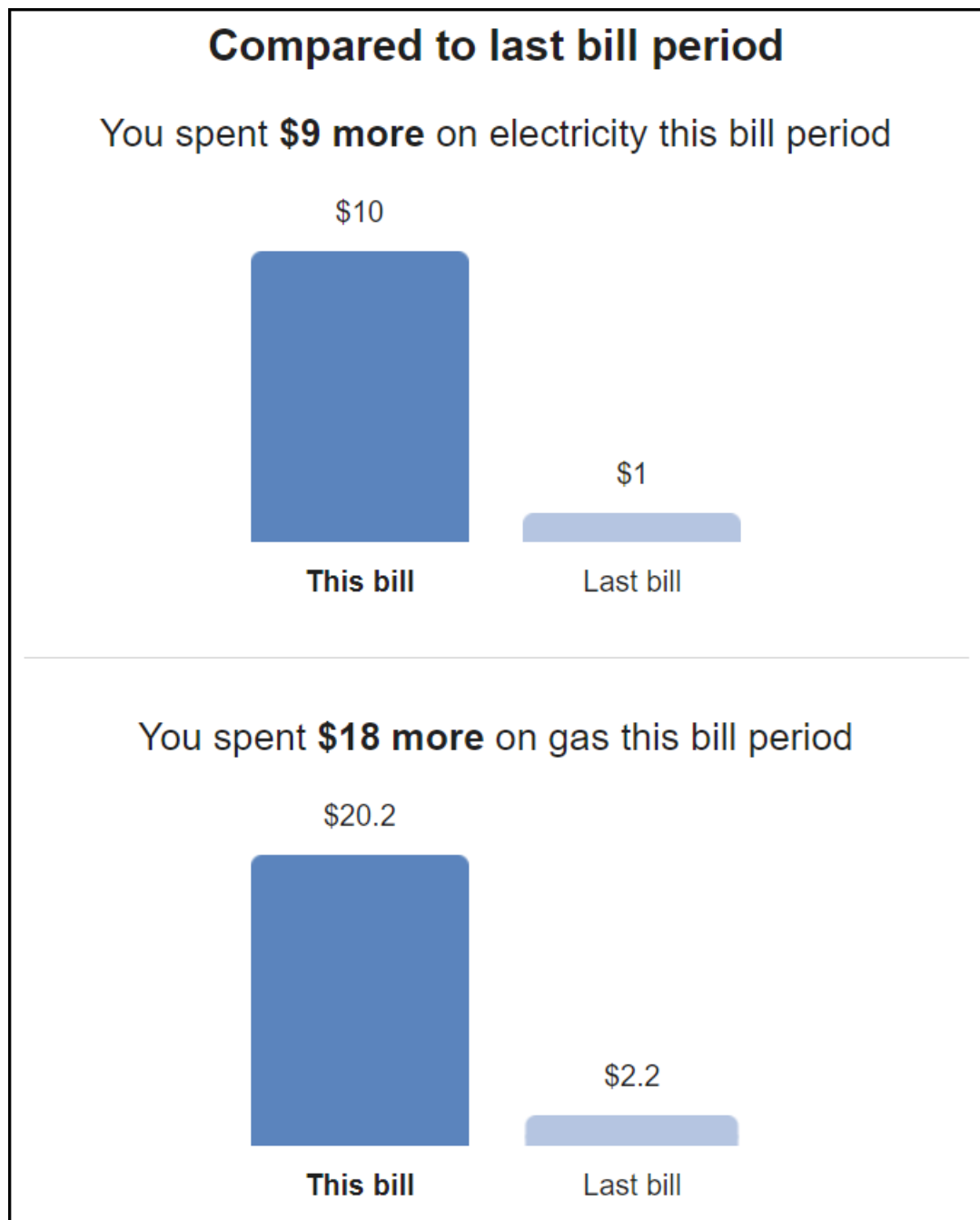
Header: The header of the module varies significantly, depending on many factors. In the dual fuel variation shown here, the header reads "Compared to last bill period".

Comparison Insight: For the dual fuel variation, an insight statement is displayed over each chart, and tells whether the customer used or spent more, less, or about the same this period as compared to the previous period.

Charts: The dual fuel variation of the module includes two charts, each with two bars that show cost or usage for the last bill and the current bill.

Bar Labels: Below the charts, labels are displayed that show which bar depicts the current bill, and which bar depicts the last bill. The labels are "This bill" and "Last bill".

The image below is an example of the Post Bill Comparison module:



Post-Bill Report Introduction Module

The Post-Bill Report Introduction module appears at the top of the Post-Bill Report email, and notifies the customer that this email will provide them with a breakdown of their recent bill. The module also provides the dates of the associated billing period.

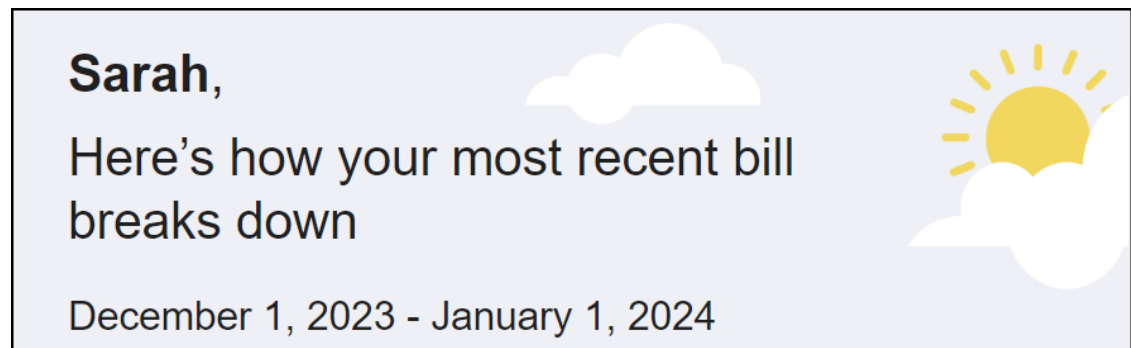
User Experience

The module includes these components:

Header: The module header tells the user that this data will show them information about their most recent bill. By default, the header statement reads, "This is how your most recent bill breaks down."

Date Range: The date range below the header tells the user the dates associated with the billing period. If the email includes information about multiple fuels and the date ranges are not the same for each of them, two date ranges are included, each with a label of "Electric:" or "Gas:"

The image below is an example of the Post Bill Report Introduction module:



Shift Nudge Module

The Shift Nudge Module is designed to educate utility customers about the environmental benefits of adjusting when they use electricity. By highlighting the impact of high-demand periods on energy generation, the module encourages customers to shift their usage to times when demand is lower and cleaner energy sources are more likely to be used.

This module helps utilities promote more sustainable energy consumption behaviors without requiring significant effort from customers. By clearly communicating when to avoid using electricity, it empowers customers to make small changes that collectively reduce strain on the grid and lower overall emissions.

For customers, the module provides simple, actionable guidance that connects everyday energy use decisions to broader environmental outcomes. This strengthens customer engagement while reinforcing the utility's role in supporting environmental responsibility.

User Experience

This module includes the following components:

Graphic: A visual icon displayed at the top of the module showing a globe with a lightning symbol, representing energy use and its environmental impact.

Heading: A prominent title that communicates the main message of the module. For example, "Shift your use, help the environment".

Explainer Statement: A short paragraph that explains how shifting electricity usage can reduce emissions and benefit the environment. For example, "Using electricity when demand is low can cut emissions by reducing the need for more polluting power generation."

Times to Avoid: A highlighted section that specifies the peak time period customers should avoid using electricity. For example, "Time to avoid is 4pm - 8pm".

This is an example of the Shift Nudge Module:



Shift your use, help the environment

Using electricity when demand is low can cut emissions by reducing the need for more polluting power generation.

Time to avoid is **4pm - 8pm**

Tips Module

This module delivers energy savings tips to customers using dynamic personalized tips that are relevant to a customer's unique needs. The tips are automatically selected and prioritized based on each customer's attributes, continually refreshed with new information, and designed to cover a wide variety of energy-saving and financial investment categories. A Load Shifting tip library has been created with tips that help customers shift usage from peak to off-peak hours and reduce peak consumption.

Requirements

This table discusses customer requirements:

Category	Description
Data Coverage	The default requirements are: • 50% read coverage for the last two weeks. • 50% read coverage for the week covered by the report. • 50% read coverage for the highest day in the customer's last week. • 50% read coverage for the last day of the week. This product does not differentiate between estimated and non-estimated reads. Both types of reads are supported.
Intelligent Tip Targeting	The utility must use the Oracle Utilities Opower Intelligent Tip Targeting mechanism.

Category	Description
Minimum Number of Tips	The customer must be eligible to receive at least three tips for this module to display. If the customer is eligible for fewer than three tips, this module is not displayed.

User Experience

This module includes the following components:

Recommendation Statement: At the top of the email, the recommendation statement tells the reader that these are the recommended tips and that they are personalized based on the answers they provided in their Home Energy Survey.

Tips: The module then lists up to three tips. Clicking on an individual tip takes the customer to the public-facing tip details page on the Digital Self Service - Energy Management Web Portal. Each tip includes:

- Tip image
- Tip title
- Tip summary
- Tip savings potential

Tip Image: This image is a visual representation of the action that the tip recommends. Customers can click on the title to view more detailed information about the tip.

Tip Title: The title is a short sentence that summarizes the recommended action. Customers can click on the title to view more detailed information about the tip.

Tip Summary: The summary elaborates on the tip with more explanation about why using the tip is beneficial.

Tip Savings Potential: Below the summary, a statement tells the reader how much they can save by implementing the tip.

Get more savings tips button: This button appears at the bottom of the module, after the tips. When clicked, this button directs users to the Digital Self Service - Energy Management Ways to Save. Customers can see the public-facing version of this page even if they have not signed in.

This image shows an example of the Tips module:

Top recommended tips for you

These tips were personalized based on your Home Energy Survey.



Run ceiling fans in reverse during the winter to circulate warm air

Warm air rises and collects near ceilings. In the winter, you can run your ceiling fan in reverse on a low setting to circulate warm air more evenly. Then lower your thermostat to save on heating costs.

Save up to \$13 per year



Make sure your refrigerator door seal is tight

If the seal on your refrigerator or freezer door isn't doing its job, your appliance could be leaking some of the cooled air it produces. To fix the problem, replace your leaky seal with a new one.

Save up to \$13 per year



Use a moisture sensor on your dryer to avoid over-drying

Hang drying is the most energy-efficient and low-cost way to dry clothes. If you do need to use a clothes dryer, make sure to run only full loads and remove lint from the filter after each cycle.

Save up to \$4 per year

Get more savings tips

TOU 101 Module

This module educates customers about when electricity is most expensive based on their TOU rate plan. The module provides customers with the following information:

- Whether electricity prices differ on weekdays and weekends
- How much more expensive peak prices are than off-peak prices
- The hours during which electricity is most expensive
- A visual timeline that displays off-peak, partial-peak, and peak hours

User Experience

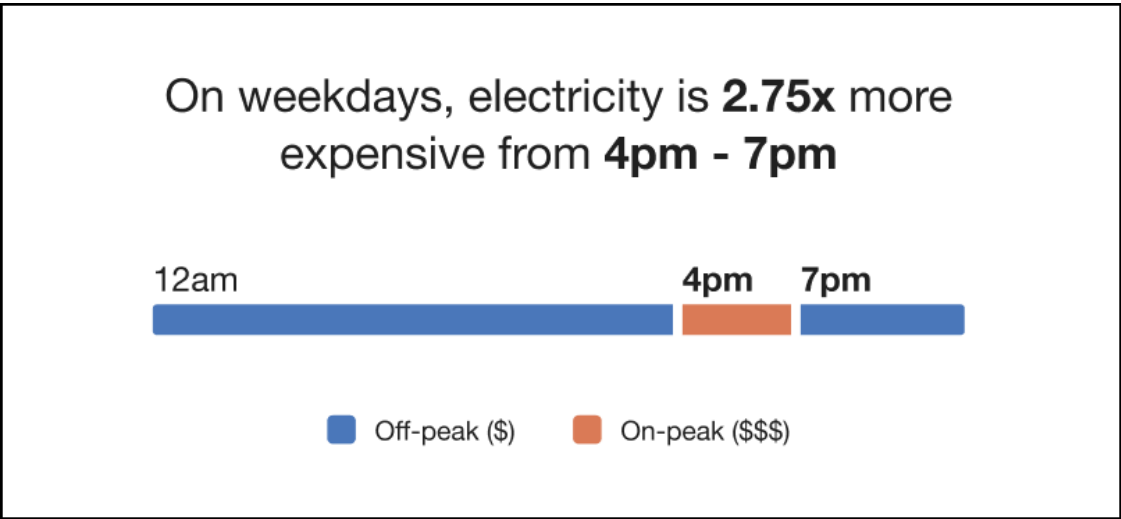
This module includes the following components:

Insight Statement: A statement at the top of the module identifies the peak hours, and provides information about how much more expensive energy use is during those hours. For example, "On weekdays, electricity is 2.75x more expensive from 4pm - 7pm".

Peak Hours Sliding Scale: This component highlights the hours during the day when the customer's electricity is most expensive based on their TOU rate plan. It is designed to inform customers when their electricity use will contribute most significantly to a higher energy bill.

This module was designed to be used in conjunction with the [Hourly Usage module](#).

This image is an example using only peak and off-peak periods:



User Experience Variations

This section discusses the user experience variations in the TOU 101 module.

Peak Hours Insight Statement

The Peak Hours insight statement varies based on the customer's rate plan and the type of days displayed in the timeline. The following table shows the insight statement variations for different scenarios:

Peak Hour Scenario	User Experience Example
Weekdays with a single peak period for plans with differing rates on weekdays and weekends.	On weekdays, electricity is 1.5x more expensive from <Xpm to Xpm>.
Weekdays with multiple peak periods for plans with differing rates on weekdays and weekends.	On weekdays, electricity is 1.5x more expensive from <Xam to Xpm> and <Xpm to Xpm>.
Weekend days with a single peak period for plans with differing rates on weekdays and weekends.	On weekends, electricity is 1.5x more expensive from <Xpm to Xpm>.
Weekend days with multiple peak periods for plans with differing rates on weekdays and weekends.	On weekends, electricity is 1.5x more expensive from <Xam to Xpm> and <Xpm to Xpm>.

Peak Hour Scenario	User Experience Example
Any day for plans with a single peak period, and a pricing scheme that is the same on weekdays and weekends.	Electricity is 1.5x more expensive from <Xpm to Xpm>.
Any day for plans with multiple peak periods, and a pricing scheme that is the same on weekdays and weekends.	Electricity is 1.5x more expensive from <Xam to Xpm> and <Xpm to Xpm>.
Any of the above variations with tiered TOU rates.	The above statements are used, but the wording "up to" is included before the price ratio. For example: - Electricity is up to 1.5x more expensive from <Xpm to Xpm>. - On weekdays, electricity is up to 1.5x more expensive from <Xpm to Xpm> and <Xpm to Xpm>. Note that the tier with the highest price ratio is used when determining the price ratio in the statement.

Multiple Peak Periods

For utility customers with rate plans that include multiple peak periods, the timeline shows all peak periods using the same color.

Peak and Partial-Peak Periods

For utility customers with rate plans that include both peak and partial-peak periods, the timeline shows both periods using two different colors.

Transition Module

The Transition module serves multiple purposes at different times of the year. This module is used to:

- Welcome customers to their program in their introduction email
- Notify customers that their peak to off-peak price ratios or peak hours are about to change each season
- Remind customers that their peak to off-peak price ratios or peak hours have recently changed for the season

The welcome state of the module is included in the customer's Introduction email. The seasonal transition states of the module are sent one week before the transition date, and again one week after the transition date, along with the regular cadence of the emails.

Requirements and Limitations

This section discusses customer requirements and limitations.

Customer Requirements

This table lists the customer requirements:

Category	Description
Data History	AMI data for the last two weeks.
Data Coverage	50% read coverage for the week covered by the report.

Note

This product does not differentiate between estimated and non-estimated reads. Both types of reads are supported.

Limitations

The limitations are:

- **Zero Usage Emails Including the Season Transition Module:** In cases where the email includes the pre-transition version of the module, if the Weekly Comparison module has 0 usages, exclude that module but send the communication. If the Hourly Usage module has 0 usages, exclude that module but send the communication. Customers have only one opportunity to see the rate transition information, so it's valuable to send, even if other modules are excluded from the email.

User Experience

This section describes the user experience for pre-transition and post-transition states of the Transition module when used in the TOU Load Shifting Report emails, where both the peak hours and the peak price ratios are changing.

Pre-Transition State - TOU Load Shifting Reports

This module includes the following components:

Delivery: This module is sent one week before the seasonal changes occur to the customer's TOU rate plan, and can be included in either the Weekly email or Post-Bill Report emails.

Module Placement: When included in the Weekly email, this module is placed above the Weekly Comparison module. When included in the Post-Bill Report email, this module is placed above the Post-Bill Report Bill Comparison module.

Subject Line: The subject line for emails that include the pre-transition state is, "Hi [first name], your rate plan has an update coming [date]."

Graphic: The module, when in the pre-transition state, begins with a graphic.

Header: The default heading for the pre-transition state is, "Coming soon: changes to your peak hours and pricing".

Insight Statement: An insight message below the header describes the upcoming change. When both peak price ratios and peak times are changing, the insight statement for the pre-transition state is, "Starting [date], on-peak and partial-peak will have new hours and pricing for

the new season. To save more, try to avoid using high-energy use appliances during on-peak hours."

Peak Details Table: This table displays the following information for both the current plan and the upcoming (new) plan:

- Dates the plan is in effect
- Peak hours
- Partial peak hours (if applicable)
- Price difference ratio between peak and off-peak hours

This image shows an example of the module in the pre-transition state:



Coming soon: changes to your peak hours and pricing

Starting May 1, on-peak and partial-peak will have **new hours and pricing** for the new season. To save more, try to avoid using high-energy use appliances during on-peak hours.

	Current	New
Dates	Nov 1 - Apr 30	May 1 - Oct 31
Peak hours	7am - 10am	5am - 8am
Partial-peak hours	None	None
Price difference	1.8x	1.5x

Post-Transition State

In this state, the module includes the following components:

Delivery: This module is sent one week after the seasonal changes occur to the customer's TOU rate plan, and can be included in either the Weekly email or Post-Bill Report emails.

Module Placement: When included in the Weekly email, this module is placed just below the email header, and the Weekly Comparison module is intentionally hidden. When included in the Post-Bill Report email, this module is placed just below the header, and the Post-Bill Report Bill Comparison and Hourly Usage modules are intentionally hidden. The emails are intentionally structured to focus on the transition details, and usage charts are hidden to reduce confusion and to accommodate transition days that might have occurred during the previous week.

Subject Line: The subject line for emails that include the post-transition state is, "Hi <first name>, your email is here with new peak details."

Graphic: The module, when in the post-transition state, begins with a graphic.

Header: The default heading for the post-transition state is, "Here are the new peak hours and pricing".

Insight Statement: An insight message below the header describes the change that was made. When both peak price ratios and peak times are changing, the insight statement for the post-transition module is, "As of <date>, on-peak and partial-peak hours and pricing have changed for the new season. To save more, try to avoid using high-energy use appliances during on-peak hours."

Peak Details Table: This table displays the following information for both the current (new) plan and the old plan, and highlights the data in the current column to call attention to the new details:

- Dates the plan is in effect
- Peak hours
- Partial peak hours (if applicable)
- Price ratio between peak and off-peak hours

This image shows an example of the module in the post-transition state:



Here are the new peak hours and pricing

As of June 1st, on-peak and partial-peak **hours and pricing have changed** for the new season. To save more, try to avoid using high-energy use appliances during on-peak hours.

	New	Old
Dates	Jun 1 - Sep 30	Oct 1 - May 30
Peak hours	4pm - 7pm	6am - 9am
Partial-peak hours	None	9am - 1pm
Price difference	1.5x	1.8x

User Experience Variations

This section discusses the user experience variations in the Transition module.

Welcome State - TOU Load Shifting Report Emails

When the module is included in the welcome email of the TOU Load Shifting Report, it introduces the customer to their rate plan, and explains why they are receiving the email. In this state, the module contains these components:

Explanatory Statement: The module begins with the heading "Why you're receiving this" followed by the explanatory statement that reads, "This is a weekly email to help you save money by avoiding using electricity during the higher-cost times of the day."

Plan Steps: The next section of the module explains how the customer's rate plan works. For TOU customers, there are 3 items listed under the "Here's how your rate plan works" heading, while Demand rate customers have an additional 4th item.

Graphic: The module ends with a piggy bank graphic, showing that they can save money.

Why you're receiving this

This is a weekly email to **help you save money** by avoiding using electricity during the higher-cost times of the day.

Here's how your rate plan works:

- 1** You're on a winter rate plan that charges **different prices** throughout the day
- 2** It lasts from **November 1 - April 30**
- 3** By using **less electricity** when it's most expensive, you can **save on your bill**
- 4** Your plan includes **demand charges** - once per bill period you'll also be **charged \$12.24 per kilowatt** you use in the **hour of your highest electricity usage** during **on-peak** times of the day



Welcome State - Non-TOU Load Shifting Emails

When the module is included in the welcome email of the Non-TOU Load Shifting Report program, it introduces the customer to the program and explains why they are receiving the email. In this state, the module contains these components:

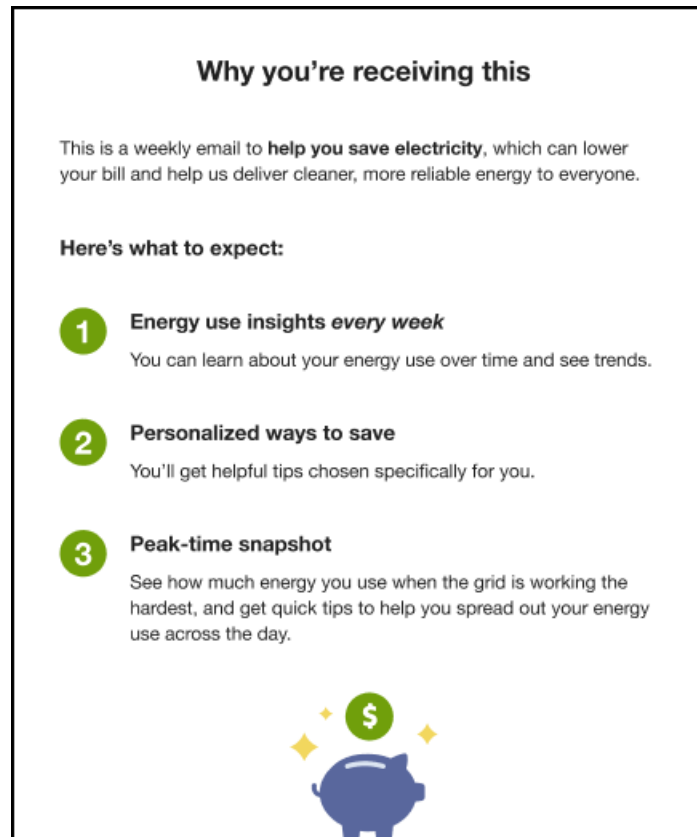
Explanatory Statement: The module begins with the heading "Why you're receiving this" followed by the explanatory statement that reads, "This is a weekly email to help you save electricity, which can lower your bill and help us deliver cleaner, more reliable energy to everyone."

What to Expect Section: The next section of the module explains what the customer can expect from the Flat Rate Load Shifting Email program. There are 3 items listed under the "Here's what to expect" heading, as follows:

- **Energy use insights:** The first item in the list begins with "Energy use insights every week", followed by the explanatory statement, "You can learn about your energy use over time and see trends."
- **Tips:** The second item in the list begins with "Personalized ways to save", followed by the explanatory statement, "You'll get helpful tips chosen specifically for you."

- **Peak-time information:** The third item in the list begins with "Peak-time snapshot", and is followed by the explanatory statement, "See how much energy you use when the grid is working the hardest, and get quick tips to help you spread out your energy use across the day."

Graphic: The module ends with a piggy bank graphic, showing that they can save money.



Peak Hours Change but Price Ratios Stay the Same

When only the peak hours are changing, and the ratios are staying the same, several items in the pre-transition and post-transition modules vary.

Pre-transition variations:

- **Header:** The module header is, "Coming soon: changes to peak hours."
- **Insight Statement:** The insight statement is, "Starting [date], peak hours will change for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table does not include the price difference row.

Post-transition variations:

- **Header:** The module header is, "Here are the new peak hours."
- **Insight Statement:** "As of [date], peak hours have changed for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table does not include the price difference row.

Price Ratios Change but Peak Hours Stay the Same

When only the price ratios are changing, and the peak hours are staying the same, several items in the pre-transition and post-transition modules vary.

Pre-transition variations:

- **Header:** The module header is, "Coming soon: changes to peak pricing."
- **Insight Statement:** The insight statement is, "Starting [date], peak pricing will change for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table does not include the peak hours row.

Post-transition variations:

- **Header:** The module header is, "Here is the new peak pricing."
- **Insight Statement:** "As of [date], peak pricing has changed for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table does not include the peak hours row.

Peak and Partial-Peak Hours Change but Price Ratios Stay the Same

When only the peak and partial-peak hours are changing, and the price ratios are staying the same, several items in the pre-transition and post-transition modules vary.

Pre-transition variations:

- **Header:** The module header is, "Coming soon: changes to peak hours."
- **Insight Statement:** The insight statement is, "Starting [date], peak and partial-peak hours will change for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table includes a row for partial-peak hours and does not include the price difference row.

Post-transition variations:

- **Header:** The module header is, "Here are the new peak hours."
- **Insight Statement:** "As of [date], peak and partial-peak hours have changed for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table includes a row for partial-peak hours and does not include the price difference row.

Peak and Partial-Peak Hours and Price Ratios Change

When the peak and partial-peak hours are changing, and the price ratios are also changing, several items in the pre-transition and post-transition modules vary.

Pre-transition variations:

- **Header:** The module header is, "Coming soon: changes to peak hours and pricing."
- **Insight Statement:** The insight statement is, "Starting [date], peak and partial-peak hours will have new hours and pricing for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table includes a row for partial-peak hours.

Post-transition variations:

- **Header:** The module header is, "Here are the new peak hours and pricing."
- **Insight Statement:** "As of [date], peak and partial-peak hours have changed to new hours and pricing for the new season. To save more, try to avoid using high-energy use appliances during peak hours."
- **Peak Details Table:** The table includes a row for partial-peak hours.

Weekly Comparison Module

This module compares the customer's electricity or gas costs for the current week with those of the previous week and provides feedback based on the comparison. If the customer is dual fuel, the module includes graphs for both electric and gas use. If the customer is eligible to receive cost information, a cost comparison is shown instead of a usage comparison.

Requirements and Limitations

This section discusses customer requirements and limitations.

Customer Requirements

This table lists the customer requirements:

Category	Description
Data Requirements	AMI (hourly or more granular) data.
Data History	AMI data for the last two weeks.
Data Coverage	The default requirements are: 50% read coverage for the week covered by the report. 50% read coverage for the week preceding the report one. This product does not differentiate between estimated and non-estimated reads. Both types of reads are supported.
Rates	Utility rates must be modeled by Oracle Utilities for cost information to appear. If rates are not modeled, energy use information is displayed by default. If the utility chooses to display cost information, rate modeling is required during initial program setup for an additional fee. See the Oracle Utilities Opower Rates Engagement Cloud Service Product Overview for more information.

Limitations

These are the limitations:

- **Zero Usage:** In the case when a customer hasn't used any electricity during the week, several checks are completed to determine whether to hide modules, or to fail the entire email communication. The checks are as follows:
 - **Introduction Email:** If the Hourly Usage module has 0 usage, the module is excluded from the communication.
 - **Weekly Email:** If the Weekly Comparison module has 0 usages, the communication is not sent. If the Hourly Usage module has 0 usages, the module is excluded but the communication is sent.

- **Emails Including the Season Transition Module:** The TOU Load Shifting Weekly email can contain the Season Transition module. If the emails include the pre-transition version of the module and the Weekly Comparison module has 0 usages, the module is excluded from the communication. If the Hourly Usage module has 0 usages, the module is excluded from the communication.
- **Rates with no on-peak period in a given season:** The module shows non-peak usage data when no on-peak TOU period is present. See the User Experience Variations.

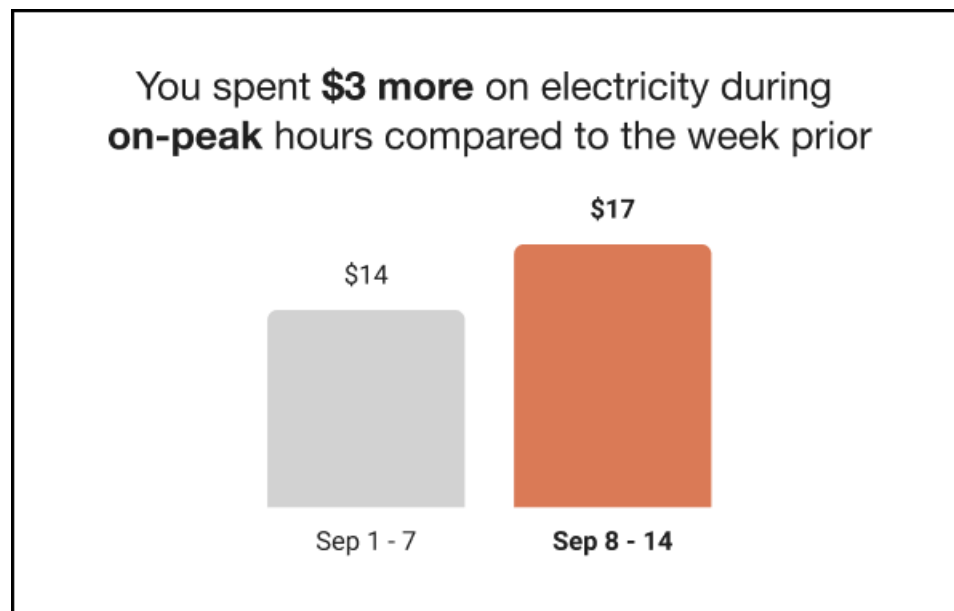
User Experience

This module includes the following components:

Insight Statement: A message above the graph that varies based on how the customer's costs in the week compare to those of the previous week. For example, if the customer spent less on energy in the current week, the message might say, "Great job! You spent [\$X] less on electricity during peak hours this week." The message changes based on the customer's cost comparison. No filtering is performed to remove high or low usage outliers. Partial peak hours are not included in the comparison.

Bar Graph: The module includes a horizontal bar graph that compares the customer's energy costs during peak hours in the previous week to their spending during peak hours in the current week.

This image shows an example of the Weekly Comparison module:



User Experience Variations

This section discusses the user experience variations in the Weekly Comparison module.

Weekly Engagement Reports Gas-Only

For gas-only customers, the electricity unit "kWh" is replaced by "therms" or "CCFs" (whichever unit of measure is appropriate for the utility), and the word "electricity" is replaced by "gas".

Weekly Engagement Reports Dual Fuel

Dual fuel customers see two graphs in the Weekly Comparison, one for electricity usage and one for gas usage. The title is "Compared to last week".

Modeled Rates

If rates are modeled and the utility has opted to display cost information in this module, then cost information is displayed in the comparison rather than usage information.

Negative Values for Solar Customers

For customers on net metering rate plans that support solar credits, negative energy use can be displayed in the Weekly Comparison graph. This can include bars that are displayed below the graph axis to represent negative values as shown in the example below. Be aware the support for negative value display must be configured, which is discussed as part of the global configurations in [Design and Configuration](#).

Load Shifting Reports Variations

When used in Load Shifting reports, the insight statement varies as follows, based on whether the customer spent more, less, or about the same this week:

- You spent [\$X] more on electricity during peak hours this week.
- You spent [\$X] less on electricity during peak hours this week.
- You spent about the same on electricity during peak hours this week.

Load Shifting Usage Variation

If the email is designed to display usage instead of cost, the module displays the following:

- **Insight Statement:** You used <XX% more/less> electricity during peak hours this week
- **Decimal Places for kWh:** When displaying usage, you can configure the module to include up to two decimal places in the kWh display. For example, 4.25 kWh.

Load Shifting Data Overlapping the Seasonal Transition Date

Costs cannot be calculated for this module if the seasonal transition occurs within the module look back period. The behavior of the module is impacted by whether or not the peak hours data has changed.

Peak hours have changed: If peak hours changed at the season transition, and the look-back period for a given module overlaps the season transition date, then the module fails and the individual module is not included in the email. The report will still be sent with the remaining modules.

Peak hours have not changed: If the customer's peak hours have not changed, one of the following variations occurs:

- If peak hours have not changed in a period that overlaps the seasonal transition, the seasonal transition module is shown in usage form.
- If peak hours have not changed in a period that overlaps the seasonal transition, *and non-peak data for other data changing modules in the report have changed during the season transition date*, then all of the report modules are shown in usage form. Costs are not calculated or shown.

Load Shifting Rates with Off-Peak and Partial-Peak Periods Only

The module automatically evaluates whether there is an on-peak period in the current rate plan. If there is no on-peak period in the current rate plan, the module will use part-peak data to show off-peak usage.

 Note

This variation is only applicable to the Weekly Comparison module and the Peak Usage Summary module. Disaggregation and bill period modules do not support an off-peak usage variation.

5

Inside Opower

This cloud service includes access to Inside Opower. Inside Opower is an online, utility-facing suite of tools to help users across a utility stay informed of and manage their Oracle Utilities Opower program. Utility users can access key data such as program insights, analytics, reports, contact information, and documentation.

See the [Oracle Utilities Opower Inside Opower Product Overview](#) for details.

6

Customer Service Interface - Program Management

This cloud service includes access to the Customer Service Interface - Program Management tool. The Customer Service Interface (CSI) is an online support tool that provides utility support staff with the information and functionality they need to manage the Oracle Utilities Opower program and answer customer questions. See the [Oracle Utilities Opower Customer Service Interface - Program Management Product Overview](#) for details.

7

Contact Your Delivery Team

Your Oracle Delivery Team is the group responsible for setting up, configuring, launching, or expanding your Oracle Utilities Opower program. Contact your Delivery Team if you have any questions about your program products and implementation.

To contact your Delivery Team:

1. Sign in to Inside Opower (<https://inside.opower.com>). This is your portal for questions and information related to your program.
2. Go to the Community tab to see who is on your Delivery Team.
3. Contact any of the team members using the information provided.

If you need to report an issue or get technical support, contact [My Oracle Support](#).