Oracle Utilities Opower Distributed Energy Resources Customer Engagement Cloud Service

Product Overview

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Getting Started

As utility customers become active participants in the energy grid, generating and storing their own energy, their energy management needs are becoming more complex. The Distributed Energy Resources Customer Engagement Cloud Service provides features that enable utility companies to increase customer education, engagement, and satisfaction.

The Distributed Energy Resources Customer Engagement Cloud Service, in conjunction with the Digital Self Service - Energy Management Cloud Service, includes features that:

- Onboard new solar customers by educating them about their solar bills before they receive them.
- Educate customers about their energy usage and additional steps they can take to save energy as they move through their solar journey.
- Engage customers by showing them the value and financial benefits of their investment, and increase self-service by leading them to solar features and insights on the web.

By educating solar customers and enabling them to easily answer their own questions, utilities can significantly decrease the costs associated with supporting customers using distributed energy resources, while increasing customer engagement and satisfaction.

The following features are available in this service:

- Solar Web Features
- Solar Update Notifications
- Customer Service Interface Program Management
- Inside Opower

For additional information, see the <u>Oracle Utilities Opower Digital Self Service - Energy</u> <u>Management Cloud Service Overview</u>.

Understanding Solar Billing

Before using this product, it is recommended that you understand the meaning of net metering and net billing. These examples help to explain the difference. These examples have been purposely simplified to illustrate the differences in the two models, and might not reflect the actual billing practices of your utility.

Net Energy Metering (Monthly or Annual)

Bills for net energy metering customers are based on the net amount of energy that is exported and imported, and the customer pays a single rate for the remaining amount. This model can be used for monthly or annual billing, and is referred to as net metering monthly or net metering annual. In this model, the same amount is used to calculate the charges for energy that is imported or exported. For example:

- The customer imports 200 kWh of energy this month.
- The customer exports 150 kWh of energy this month.
- The customer will be charged for 50 kWh as follows, depending on whether they are monthly or annual:
 - Net Metering Monthly Customers: Customers will pay off this charge when they receive their monthly bill.
 - Net Metering Annual Customers: Customers will receive a bill that includes their standard monthly fee, plus a charge for the 50 kWh. However, they only pay the fee this month. The charge for the 50 kWh is added to an accruing balance. The customer then pays the accrued balance in full when they reach their annual billing date.

Net Billing (Monthly Only)

Net billing customers are charged for the energy they import and credited for electricity they export at two different rates. The actual energy charge is based on the net of the calculated amounts. This type of billing only happens on a monthly basis. For example:

- The utility pays the customer \$1 for every kWh they export. This month, the customer exports 150 kWh of energy, totaling \$150.
- The utility charges the customer \$2 for every kWh they import. This month the customer imports 200 kWh, totaling \$400.
- The customer's net billing amount (excluding fees, taxes, etc.) is \$400 \$150 = \$250.

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

Design and Configuration

The Oracle Utilities Opower platform allows for product configurations and customizations to meet the needs of each utility. A *configuration* is a simple change that can be made with no coding required. There are required configurations and optional configurations. A *customization* is a change that requires more in-depth technical work, design, or coding to alter the appearance or behavior of the product, or to create something new within the product.

This guide provides only a summary of configuration options. Customization options may be available for your program at cost as an Oracle Utilities Opower professional service offering. Ask your Service Delivery Manager how customization options could enhance your program.

Note: If an element is not listed as a configuration, you should assume that it cannot be configured and would require a customization. Contact your Service Delivery Manager if you have questions about this process or would like to make a customization request.

Default Text and Options

Unless otherwise noted, Oracle recommends that you use the default text and options that are provided. These options have been chosen carefully by our copywriters and have been through user testing to maximize comprehension and effectiveness. If you must configure an option to use something other than the default, be aware of the following:

- While you can configure the text that appears, you cannot change the logic behind the text.
- Using options and text other than the default could impact the effectiveness of your program.

The following sections discuss the design, configuration options, and the user experience variations that are specific to the Distributed Energy Resources features.

Configuration of Solar Web Features

This section discusses how to configure solar web features, which include:

- Solar features on the Data Browser
- Solar messaging in Bill Comparison
- Solar messaging in Bill Forecast

Solar Features on the Data Browser

Solar customers who navigate to the Electricity View in the Digital Self Service - Energy Management Data Browser can view information about their solar program. Solar features provide simplified, detailed solar information that customers can easily understand. Solar customers are shown how to properly read their positive and negative consumption data, and how to interpret complex solar bills.

The following solar features are available on the Data Browser page:

- Solar Welcome Experience
- Billing Insight
- Solar Savings Insight
- Compare to Last Year View

Requirements

This section discusses utility and customer requirements for solar features in the Data Browser.

Utility Requirements

Category	Description
Required Cloud Service	 The following cloud services are required to view solar web features: Oracle Utilities Opower Distributed Energy Resources Customer Engagement Cloud Service Oracle Utilities Opower Digital Self Service - Energy Management Cloud Service

Category	Description
Scale	No household restriction.

Customer Requirements

Category	Description
Billing Frequency	Monthly billing and bi-monthly billing required. This is also true for annual billing true up customers, as they still receive a monthly bill that details energy usage changes and their monthly non-energy charges. However, they are only prompted to pay the non-energy charges on a monthly basis. The energy charges accrue throughout the billing year.
Data Requirements	AMI data is recommended, and enables more functionality, but is not required. Modeled Rates data is recommended, and enables more functionality, but is not required.
Data History	While there is no actual data history requirement, customers with 12 or more months of pre-solar data might have a more complete experience, as some insights compare pre-solar data to post-solar data. If there is not enough pre-solar data, the insights are modified.
Supported Fuels	Electric

Display Rules for Solar Web Insights

The following display rules apply to solar web insights in the Data Browser:

- Insights only appear on the Electricity tab in the Data Browser. They do not appear on the Combined or Gas tabs.
- The monthly Billing Insight that displays above the graphs only appears on the Bill View in both the Cost and Usage charts.

- The annual Billing Insight that displays above the graphs only appears on the Year
 View in both the Cost and Usage charts.
- The Green Box Insight that displays beneath the Data Browser chart only appears for Net Billing customers.
- The following solar insights appear on the Year, Bill, and Day views on the Cost and Usage charts:
 - Most Recent Bill section of the monthly Billing Insight
 - Solar Savings Insights
 - Expandable Welcome Experience
- The Solar Savings Insight is not displayed in the Neighbor view.
- The Compare to Last Year tab only appears for solar customers. The Compare to Last Year functionality is available in its own view and is not displayed on Usage or Cost charts.

Solar Welcome Experience

Solar customers who navigate to the Electricity view in the Digital Self Service - Energy Management Data Browser for the first time after their solar panels become operational, are shown the Solar Welcome Experience. This feature details solar information in a simplified format that customers can easily understand. Customers will see a **Solar Billing Overview** and an **Energy** or **Electricity Use Overview** that shows them how to properly read positive and negative consumption data, and how to interpret complex solar bills.

On subsequent visits to the **Electricity** view, the Solar Welcome Experience is not displayed, but is accessible by clicking **Learn How Solar Billing Works** at the bottom of the page.

User Experience

This section discusses the user experience for the **Solar Billing Overview** and the **Energy/Electricity Use Overview**.

Solar Billing Overview

The **Solar Billing Overview** section of the Solar Welcome Experience explains how solar bills are calculated and provides solar customers with information about what they can expect to pay for electricity. The experience varies for Net Metering monthly and annual customers, and Net Billing customers.

The **Solar Billing Overview** section of the Solar Welcome Experience for Net Metering monthly billing customers includes the following components:

Monthly Bill Statement: This statement tells the customer that each month they are charged for electricity they use or receive credits if they produce more electricity than they use.

At the End of the Year Statement: This statement explains what happens to any remaining solar credits at the end of the year.

The follow image is an example of the **Solar Billing Overview** for Net Metering monthly billing customers.



Energy/Electricity Use Overview

The Energy Use Overview section shows the customer the differences between Net Energy Use and Net Solar Production. The Energy Use Overview includes the following components:

- Net Electricity Use Graph: This bar graph shows an example of how net electricity usage is displayed for solar customers.
- Net Electricity Use Insight Statement: The statement below the graph explains how the graph displays positive and negative net energy usage.
- Net Solar Production Graph: This bar graph shows an example of how net solar production is displayed for solar customers.
- Net Solar Production Insight Statement: The statement below the graph explains how the graph displays net solar production.
- View Energy Use Button: For monthly customers, this button opens the monthly Billing Insight, and for annual billing customers, it opens the annual Billing Insight.

The following image is an example of the **Energy Use Overview** for Net Metering customers.



User Experience Variations

This section discusses how the experience can vary.

Solar Billing Overview for Net Metering Annual Billing Customers

The **Solar Billing Overview** section of the Solar Welcome Experience for Net Metering annual billing customers includes the following components:

- Monthly Fee Statement: This statement explains how an annual solar customer's monthly solar fees are calculated.
- Monthly Fee Box: This box appears next to the Monthly Fee statement and shows customers their expected minimum service fee.
- Annual Electricity Bill Statement: This statement explains how the annual billing cycle works.
- Estimated Annual Charges Box: This box appears next to the Annual Electricity Bill statement and shows customers the remaining number of months and their estimated charges to-date in the current billing cycle.

The following image is an example of the **Solar Billing Overview** for Net Metering annual billing customers.

Solar Billing Overview	
Monthly Fee You are charged a service fee each month for electricity delivered to your home, regardless of how much electricity you use or produce.	Minimum monthly electricity service fee \$10
Annual Electricity Bill You are charged one time for your annual net electricity use at the end of your billing cycle.	Your estimated charges for the billing year to-date (with XX months remaining) \$97

Solar Billing Overview for Net Billing Customers

Net Billing customers will see a **Monthly Fee** statement and an **Annual Electricity Bill** statement.

- Monthly Fee Statement: This statement explains that Net Billing customers are charged based on the amount of electricity they use and send back to the grid.
- Annual Electricity Bill: This statement explains what happens to the remaining credit balance.

Electricity Use Overview for Net Billing Customers

Net Billing customers will see an **Electricity Use Overview** instead of an **Energy Use Overview**.

- Electricity Purchase Statement: This statement describes what happens when customers are using more than they are producing.
- Electricity Sold Statement: This statement describes what happens when customers are producing more than they are using.
- Do Not Show This Again Checkbox: When a customer selects this box, the Welcome Experience will not show when they open Data Browser. If this box is left unchecked, this pop-up will only appear when the customer has not visited the page in at least 90 days.
- View Energy Use Button: This button closes the pop-up box and shows the Data Browser.

The following image is an example of the **Solar Billing Overview** and the **Electricity Use Overview** for Net Billing customers.



Welcome Experience After Initial Access (Net Metering and Net Billing Customers)

After a customer accesses the Welcome Experience the first time, they can get to the information again by clicking **Learn How Solar Billing Works** below the Data Browser chart. Clicking this option expands the Welcome Experience below the chart, but it is hidden for non-solar customers. For customers who use Green Button, the Welcome Experience is collapsed by default and located on the same line with the Green Button widget. When users click the option, the Green Button widget is hidden, and when the Green Button widget is expanded, the Welcome Experience is hidden.

Billing Insight

Billing Insight is designed to provide solar customers with a graphical view of their current electricity bill. Solar customers who navigate to the Electricity view in the Digital Self Service - Energy Management Data Browser for the first time will see the See "Solar Welcome Experience" on page 6. Upon subsequent visits, the customer will see the monthly Billing Insight, where they can also view previous bills.

User Experience

This section discusses the user experience for Net Metering Monthly Billing customers.

The Billing Insight for Net Metering Monthly Billing customers includes the **Bill View** and the **Most Recent Bill** sections. The **Bill View** section provides details about net electricity usage and costs for the current billing period. The **Most Recent Bill** section provides a summary of the bill and can be expanded to show additional details.

Bill View

The **Bill View** section of the monthly Billing Insight shows solar customers their costs and credits for the billing cycle. The **Bill View** includes the following components:

- Date Range: The dates associated with the current billing period.
- Billing Statement: This statement tells the customer the number of units (kWh) they were billed for during the period.
- Net Energy Usage Statement: This statement tells the customer how much more or less electricity they produced compared to how much they used. For example, the statement might say, "you produced 10 kWh more electricity than you used." This statement provides usage before credits are applied.
- Monthly Billing Graph: This graph displays the credits and costs that the customer incurred each day during the billing period. Credits are displayed as negative amounts (green bars), while costs are displayed as positive amounts (blue bars). Temperature data is also displayed on the chart to show the correlation between the weather and their net energy costs and usage.

The following image is an example of the Bill View.



Most Recent Bill

The **Most Recent Bill** section appears below the **Bill View** section. By default, the **Details** link is not expanded.

The customer must click **Details** to display the following components:

- Date Range: The dates associated with the current billing period.
- Billing Statement: This statement tells the customer the number of units (kWh) they were billed for during the period.
- View/Hide Details: This link gives customers the option to display or hide additional details about their bill.
- Net Electricity Used: This value is the number of kWh used during the billing period.
- kWh Credits Applied: This value is the number of kWh credits applied during the billing period.
- Net Electricity Charged: This value is the difference between the net electricity used and the kWh credits applied.
- Previous kWh Credit Balance: This value is the amount of kWh credits that were available before the billing period.
- New kWh Credit Balance: This value is the amount of kWh credits that are available after the charges and credits for the current billing period are applied.
- kWh Credit Statement: This statement tells the user what happens to any remaining credits at the end of the billing cycle, but varies depending on whether the true up date falls within the current period.

- If the true up date does not fall within the current billing cycle, the statement reads, "Any kWh credit balance will be applied to your next bill."
- If the true up date falls within the current billing cycle, the statement reads, "Your balance was reset on <true up date>, the end of your billing year. Any kWh credits this month will be applied to your next bill."

The following image is an example of the **Most Recent Bill** view with the **Details** link expanded.



User Experience Variations

This section describes user experience variations for solar customers.

Net Metering Annual Billing Insight

Net Metering annual billing customers are not billed, nor do they make monthly payments for net electricity usage. Instead, charges accrue during the annual billing period, and customers may receive a larger bill at the end of that period. The annual Billing Insight is designed to provide a graphical view of the customer's current electricity bill. Solar customers who navigate to the **Electricity** view in the Data Browser for the first time will see the Solar Welcome Experience. Upon subsequent visits, within the customer's Data Browser chart, the customer will see the annual Billing Insight, which displays information about billing cycle dates, year-to-date accrued charges, and the **Current Billing Year**.

The annual Billing Insight includes the following components:

- Date Range: The dates associated with the current annual billing period.
- Billing Statement: This statement tells the customer what their accrued year-to-date charges are in the current billing period.
- Monthly Billing Graph: This graph displays the net energy costs or usage (depending on the view) that the customer incurred each month during the billing period. Credits are displayed as negative amounts in green, while costs are displayed as positive

amounts in blue. A weather insight is also displayed on the chart to help customers understand the correlation between weather and their net energy costs and usage.

The following image is an example of the annual Billing Insight monthly billing graph.

ENERGY	COSTS	ENERGY	USE	SIMILAR HOM	ES						Elect	ricity ****09	27
							Year View	•					
					<	Mon YY	YY - Mor	ו YYYY	>				
/	Accr	ued o	char	ges fo	or yo	our bil	ling y	ear t	o-dat	e ado	d up t	o \$[X	X].
\$120											2010		
											2018		
\$80		65°	79°										
\$40	57°	~											
\$0													
-\$40N	1ar 14	Apr 14	May 14	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar

The Current Billing Year section appears below the monthly billing graph and includes:

- 1. Current Billing Year: This replaces Most Recent Bill, which is what Net Metering monthly billing customers see.
- 2. **Billing Cycle Statement**: Shows when the customer's accrued electricity charges for their annual billing cycle are due.
- 3. Learn How Solar Billing Woks: Expandable link showing the customer a Solar Billing Overview and an Electricity Use Overview.

The following image is an example of the **Current Billing Year** section for annual billing customers.



Net Billing Customers

Net Billing customers will see their imported and exported energy from the **Energy Use** tab within the Data Browser. The Usage Insights will show the net bill amount for each month of the bill period instead of their usage charges and export credits. Net Billing customers will also see the **Bill Breakdown** section which shows the total amount of electricity they purchased and the total amount of electricity sold back to the utility.

The Usage Insight for Net Billing customers includes the following components:

- Data Browser Graph: This graph shows blue bars that represent the amount of electricity a customer imports, and green bars that represent the amount of electricity a customer exports.
- Green Box Insight: This insight gives customers recommendations for shifting energy use to save money. By default, the insight provides 2 suggestions, but it can be configured to include an additional suggestion to encourage customers to install a battery.

Bill Breakdown includes the following components:

- **Details**: This link will expand to show users the following in dollar amounts:
 - Electricity purchased from the utility.
 - Electricity sold to the utility for credits.
 - Rollover credit balance applied (if any).
 - Total electricity costs.
- Learn How Solar Billing Works: This link will expand to show customers the definitions of purchasing electricity and selling electricity.

The following image is an example of the Usage Insights and Bill Breakdown.



No Modeled Rates

When the utility does not have modeled rates, the customer experience varies as follows for monthly billing true up customers:

- The Bill View and Day View of the Energy Cost chart are unavailable. Users are shown an error message when they attempt to access these views.
- On the Energy Usage chart:
 - The Most Recent Bill yellow credit box appears on all available resolutions.
 - The Bill Insight appears on Bill View if the bill resolution is available. See the No AMI Data variation for additional information.

The experience varies as follows for annual billing true up customers:

There is no Bill View or Day View for Energy Costs.

No AMI Data Available

When the utility does not provide AMI Data, the user experience varies as follows for monthly billing true up customers:

- Bill View and Day View are hidden for customers without AMI data. As a result, the Bill View Insight "You were billed for 0 kWh" does not appear for these customers.
- The Most Recent Bill yellow credit box appears on all other resolutions.
- The negative green bars appear if they have negative use or costs.

The experience varies as follows for annual billing true up customers:

There is no Bill View or Day View for either energy costs or energy usage. Because the above-the-chart insight for annual billing customers is shown in Year View, this insight remains.

Mobile Format

When viewing the **Energy Use** tab in the Data Browser on a mobile device, additional options are available below the chart that enable the user to hide or display the following options:

- Weather: Use this option to display the weather line on the chart. This option is set to OFF by default.
- Electricity purchased from the utility: Use this option to display the amount of electricity that was purchased from the utility in kWh. If the customer has both actual and estimated purchase data, both are displayed on the chart, and a legend appears below the option. This option:

- Is set to ON by default
- Is available only for net billing customers
- Electricity sold to the utility: Use this option to display the amount of electricity sold to the utility in kWh. This option:
 - Is set to ON by default
 - Is available only for net billing customers

This illustration shows an example of the Energy Use tab in mobile format with no estimated reads:

9:41		♀ ■
AA	a domain.com	C
Utility	Со	≡
< .	Month View 💌 Apr 1 2023 - Apr 30 202	3>
Energ	ly use	-
Electr	icity	•
10 10 5 0 5 5 5	un Sun Sun Si 3 10 17 2	un 4
	Weather (°F)	
	Electricity purchased from UtilityCo	
	Electricity sold to UtilityCo	0

This illustration shows an example of the Energy Use tab in mobile format with estimated reads:

9:41		all 🕆 🔳
AA	🔒 domain.com	Ç
Utility	Co	≡
< /	Month View 🔻 Apr 1 2023 - Apr 30 2	023 >
Energy	y use	•
Electri	city	-
15 kWh	1	
10 5 0 St	in Sun Sun 3 10 17	65 5 5 5 24
	Weather (°F)	
	Electricity purchased from UtilityCo	m
	Electricity sold to UtilityC	> 0

Compare to Last Year View

The **Compare to Last Year** view gives customers a graphical overview of their monthly costs for the current year and the previous year. This view is only available to solar customers, and the utility must have Digital Self-Service Energy Management Cloud Service and Distributed Energy Resources Customer Engagement Cloud Service for their solar customers to see it.

User Experience

The following image is an example of the Compare to Last Year view.



The Compare to Last Year view includes the following components:

- (1) Account Selector: If a customer has multiple accounts, this drop-down list allows them to select the account they want to view. If a customer selects a non-solar account from the drop-down while in the Compare to Last Year view, they will be taken to their default view (Energy Costs or Energy Use view).
- (2) Date Range: The dates above the chart represent the current 12 to 13-month period. The number of months depends on how many months are configured to be shown in Data Browser.
- Disclaimer Statement (not pictured): Customers may see one of the following disclaimers under the date range:
 - No data from previous year is available: This message appears if the customer was not a customer last year.
 - **Partial data from previous year is available**: This message appears when only partial data from the previous year is available.
- (3) Cost chart: This chart includes multiple bars that help customers compare their solar cost for this year to their solar costs from last year. The bar colors on the chart represent the following:
 - Blue: Solar charges for this year.
 - Pixelated Blue: Solar charges from last year.
 - Green: Solar credits for this year.
 - Pixelated Green: Solar credits from last year.
 - Gray: The customer's pre-solar bills from this year.
 - Pixelated Gray: The customer's pre-solar bills from last year.

- Tooltips (not pictured): When you hover your cursor over a bar on the chart, a tooltip appears. Tooltips provide additional information about the selected bar, including the month, day, and the year the bar represents compared to the same time last year. For example, Jun 1, 2021 versus Jun 1, 2022. The tooltip also displays the cost and usage for that time period in dollar amounts and kilowatt hours. Customers may also see one of the following messages on the tooltip:
 - **The bill was estimated**: See <u>Energy Tool Tips in the Digital Self Service</u> Overview for more information about bill estimates.
 - **No data from previous year is available**: This message appears if the customer was not a customer last year.
 - **Partial data from previous year is available**: This message appears when only partial data from the previous year is available.
- (4) Legend: The legend appears below the chart and describes what each bar color represents.

User Experience Variations

This section discusses how the experience can vary.

Tooltip Variations

Solar customers using the Compare to Last Year view may see one or more of the following message variations on the tooltip when hovering their cursor over a bar on the chart.

- The bill was estimated: See DSS EM Data Browser for more information about bill estimates.
- No data from X is available: This message appears when only partial data from the previous year is available.
- No data from previous year is available: This message appears if the customer was not a customer last year.

Variations by Solar Tariff Type

Solar Tariff Type	Variation
Net Metering	Monthly Billing Customers : Net Metering customers with monthly billing will see the last 12 to 13 bill periods compared to the bill periods one year

Solar Tariff Type	Variation
	prior to each billing period. Annual Billing Customers: Net Metering customers with annual billing will see that the X-axis and This Year's Bills will match the X-axis and This Year's Bills displayed in the Energy Cost Year view. Therefore, a customer who is only six months into their billing year will only see six months of bills from this year and all bills from the prior year.
Net Billing	Net Billing customers will see the last 12 to 13 bill periods compared to the bill periods one year prior to each billing period

Solar Savings Insight

The Solar Savings Insight provides a simplified view of how much money a customer has saved on their electricity bill since becoming a solar customer. Solar customers who navigate to the **Electricity** view in the <u>Data Browser</u> for the first time are shown the <u>Solar</u> <u>Welcome Experience</u>. Upon subsequent visits, the customer is shown their Billing Insight followed by the Solar Savings Insight.

User Experience

The Solar Savings Insight includes the following components:

- Before Solar Statement: This statement tells the customer what their average monthly electricity charges were before moving to solar.
- After Solar Statement: This statement tells the customer what their average monthly electricity charges are after moving to solar.
- Average Savings Statement: This statement tells the customer what their average reduction in electricity charges are since moving to solar. Customers must have at

least 12 months of billing history before becoming a solar customer, six or more bill reads after becoming a solar customer, and be saving money since their switch to solar to see the default view of the Solar Savings Insight.

- Date Range: The statement identifies which date ranges are being compared, to come up with the calculated amounts.
- Disclaimer Statement: (Not depicted) An additional message property is available below the date range so utilities can add their own disclaimer language, if needed. By default, this property is set not to display. You can include a configurable URL in the disclaimer if needed.

The following image is an example of the Solar Savings Insight.

Average monthly electricity charges before going solar	Average monthly electricity charges since going solar	Average monthly reduction in electricity charges since going solar			
\$[XX]*	\$[XX]*	\$[XX]*			
* March 2018 - September 2018 compared to March 2019 - September 2019					
LEARN HOW SOLAR BILLING WORKS					

User Experience Variations

This section describes user experience variations in the Solar Savings Insight.

Inadequate History or No Savings Reduction

While there is no billing data history requirement, customers with 12 or more months of pre-solar data might have a more complete experience, because the Solar Savings Insight attempts to compare pre-solar data to post-solar data. The insight varies depending on the amount of billing data that is available. Additionally, some customers might not experience a savings when they move to a solar program.

This table describes the Solar Savings Insight user variations, where a month is equal to one billing read:

Pre-Solar	Post-Solar	Saving Since	User
Billing History	Billing History	Switching?	Experience
Less than 12 months	One or more months	Either saving or not saving	The insight shows a box: Average

Pre-Solar Billing History	Post-Solar Billing History	Saving Since Switching?	User Experience
			monthly electricity charges since moving to solar
12 or more months	Less than six	Saving	The insight shows three boxes: Average monthly electricity charges before going solar Average monthly electricity charges since going solar A tip about how weather can impact your electricity charges
12 or more months	Six or more months	Saving	The default experience is displayed.
12 or more	One or more	Not saving	The insight

Pre-Solar	Post-Solar	Saving Since	User
Billing History	Billing History	Switching?	Experience
months	months		 shows three boxes: Average monthly electricity charges before going solar Average monthly electricity charges since going solar A message asking if there have been changes in energy usage that might contribute to the customer not saving since the move to solar

Solar Messaging in Bill Forecast

Solar customers who navigate to the **Bill Forecast** tool in the Digital Self Service - Energy Management Web Portal can view information about their projected bill. The **Bill Forecast** shows customers standard information about their bill, which includes:

- Current usage or cost so far in the billing period.
- Projected usage or cost for the billing period.
- How the current and projected usage compares to their typical usage or cost for the period, based on their past usage.

This informs customers before the end of the billing cycle if they are likely to have higher usage or cost compared to the same time period from the previous year. Customers can then take action to reduce their consumption before the billing period ends.

For solar customers, the messaging displays the projected bill in terms of net energy usage. It also includes an explanation of charges for net energy usage, where they are applicable, how they accrue, and when they are due.

Depending on whether rates are modeled, customers will see one of the following views:

- Projected bill view
- Projected usage view

For additional information about the Bill Forecast tool, see the <u>Oracle Utilities Digital Self</u> Service - Energy Management Cloud Services Overview.

Requirements

This section discusses utility and customer requirements.

Utility Requirements

Category	Description
Required Cloud Services	 The following cloud services are required to view solar web features: Oracle Utilities Opower Distributed Energy Resources Customer Engagement Cloud Service Oracle Utilities Opower Digital Self Service - Energy Management Cloud Service
Scale	No household restriction.

Customer Requirements

Category	Description
Data Requirements	AMI is required.
Data History	For the Solar Savings Insight to display, at least six months of billing history prior to becoming a solar customer is required.
Supported Fuels	Electric

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User Experience

Net Metering customers will see a projected bill view and a projected usage view in the Bill Forecast.

Projected Bill View

If rate information is available, solar customers who navigate to **Bill Forecast** in the Digital Self Service - Energy Management Web Portal can view their projected bill for the current bill period.

For solar customers, this view provides additional solar messaging, which includes the following:

- Bill Period Date Range: The date range includes the entire billing cycle.
- Net Usage Insight: Below the comparison to last year's bill, a statement tells the customer how much net electricity usage they have incurred so far during the current billing period. For example, "Your net electricity use is about \$80 so far this bill period."
- **Disclaimer Statement:** A statement that explains how the bill charges are accrued and when they are due.

The following image is an example of the Projected Bill view for Net Metering customers.

Bill forecast	Electricity 🔫
Vour projected bill is \$99	
That's about \$115 less than last year. Your net electricity use is about \$66 so far this bill period.	
Your projected bill is an estimate. Your actual bill may vary based on your energy use, taxes, and fees.	

Projected Usage View

If rate information is not available, solar customers who navigate to the **Bill Forecast** tool in the Digital Self Service - Energy Management Web Portal can view their projected usage for the current bill period.

For solar customers, the Projected Usage view provides additional solar messaging, which includes the following:

- Bill Period Date Range: The date range includes the entire billing cycle.
- Net Usage Insight: Below the comparison to last year's bill, a statement tells the customer how much net electricity usage they have incurred so far during the current billing period. For example, "Your net electricity use is about 335 kWh so far this bill period."
- Disclaimer Statement: A statement that explains how the bill charges are accrued and when they are due.

User Experience Variations

This section describes how the Bill Forecast widget can vary for Net Metering and Net Billing customers.

Net Metering Annual Billing Customers

For annual billing customers, the **Projected Bill** view and **Projected Usage** view vary as follows:

- **Bill Period Date Range:** The date range includes the monthly billing cycle.
- Disclaimer Statement: One of these statement is used, depending on whether the true-up date is available:
 - True-up date available: "Charges for net electricity use are not paid monthly. They accrue and will be due on [Mon DD, YYYY], the end of your billing cycle. Each month you pay only the service fee for electricity delivery."
 - True-up date not available: "Charges for net electricity use are not paid monthly. They accrue and will be due at the end of your billing cycle. Each month you pay only the service fee for electricity delivery."

Learn How Solar Billing Works link: This link can be included at the end of the disclaimer statement, and it will direct customers to the Solar Welcome Experience in the Data Browser.

Net Billing Customers

The **Bill Forecast** for Net Billing customers displays a cost view and a usage view. If cost is not available, then customers will see the Usage view (instead of dollar amounts, they will see kWh amounts). What customers see on their **Projected Bill** will change based on the bill period dates, the number of days into the billing period, data history, cost availability, and import/export values.

The following image is an example of the Cost view for Net Billing customers.

Projected Bill	4037071 740 Maylet & San Francisco CA 04107
	0025051 - 700 Market St, San Francisco, CA 94105 👻
Bill forecasting insights 3 Both the amount of energy you purchase from and sell to UtilCo can fluct and when and how your home uses energy.	Electricity 💌
DEC 28 - JAN 26 2	-
You're 15 days into your bill period. About 14 days remain	. 🖸
So far, you've purchased about \$53 of electric Last year, you purchased \$102 of electricity from UtilCo by	ity. () the end of the equivalent bill period.
So far, you've sold about \$6 of electricity for c Last year, you sold \$14 of electricity to UtilCo by the end of	redits. 5 f the equivalent bill period.
HELP LOWER MY BILL 6	
These bill amounts do not include taxes and fees. The costs of electricity purchase	d from and sold to UtilCo may change over time. 7
Was this information helpful? 🕡 📭	

Note: The text outlined in green will change based on the bill period dates, the number of days into the billing period, data history, cost availability, and import/export values.

The following describes the sections of the Cost view as illustrated in the above image:

1. Energy Usage Statement: A statement explaining that the amount of energy purchased and sold can fluctuate based on weather, and when and how a customer's home uses energy.

- 2. **Energy Usage Period**: These dates represent the start date of the current bill period and the projected end date.
- 3. Days Remaining Insight: The number of days left in the bill period.
- 4. Energy Purchased Insight: The amount of energy purchased so far during the current billing cycle and the amount of energy purchased last year by the end of the equivalent billing period.
- 5. **Energy Sold Insight**: The amount of energy sold so far during the current billing cycle and the amount of energy sold last year by the end of the equivalent billing period.
- 6. Help Lower My Bill Button: This link opens the Ways to Save widget.
- 7. **Disclaimer Statement**: A statement that explains that the amounts shown on the Bill Forecast tool do not include taxes and fees, and that the cost of electricity purchased and sold may change over time.

Solar Messaging in Bill Comparison

The Bill Comparison allows customers to compare their last bill to their previous bill, or to the corresponding bill from the same time period the previous year. Comparing bills is a useful way for customers to track their energy use and identify possible causes for an increase or decrease in their bill. Within the standard Bill Comparison experience, solar customers see messaging and information specific to solar billing and production.

The messages provide acknowledgment that the customer's electricity account is connected to a solar account. The information also helps to educate customers about solar billing, easily directing them to relevant information, such as the <u>solar features on the</u> <u>Data Browser</u>, when they access the Bill Comparison tool.

Requirements

This section discusses utility and customer requirements.

Utility Requirements

Category	Description
Required Cloud Service	The following cloud services are required to view solar web features: • Oracle Utilities Opower Distributed

Category	Description
	Energy Resources Customer Engagement Cloud Service Oracle Utilities Opower Digital Self Service - Energy Management Cloud Service
Scale	No household restriction.

Customer Requirements

Category	Description
Data Requirements	AMI data is recommended, and enables more functionality, but is not required.
Data History	For the Solar Savings Insight to display, at least six months of billing history prior to becoming a solar customer is required.
Supported Fuels	Electric

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User Experience

For solar customers, the Bill Comparison tool provides the following solar-related information:

- Want to Learn More Statement: This statement prompts users to click the associated button to learn more about their solar account.
- View Your Energy Use link: Customers who want to learn more about their energy use can click this link to access additional information in the Data Browser. For solar customers, this information includes solar-related data.

For additional information about the Bill Comparison tool, see the <u>Oracle Utilities Opower</u> <u>Digital Self Service - Energy Management Overview</u>.

The following image is an example of Bill Comparison for Net Metering monthly billing solar customers.

TOTAL BILL ELECTRICITY GAS	PREVIOUS BILL LAST YEAR
Your electricity charges are about \$20 lower than your previous t	ill.
This bill Previous bill \$30 \$50 Nov 25, 2015 - Die 24, 2015 30 days	
Reasons your electricity charges are about \$20 less	
Weather Your solar panels may have produced more energy, or you may have used less energy.	- \$3.00
Weather Your solar panels may have produced more energy, or you may have used less energy. Rate plan change Your rate plan changed to Time-of-Use (E6).	- \$3.00 + \$1.00
Weather Your solar panels may have produced more energy, or you may have used less energy. Rate plan change Your rate plan changed to Time-of-Use (E6). Bill period You likely used less electricity because this bill period was 1 day shorter.	- \$3.00 + \$1.00 - \$2.75
Weather Your solar panels may have produced more energy, or you may have used less energy. Rate plan change Your rate plan changed to Time-of-Use (E6). Bill period You likely used less electricity because this bill period was 1 day shorter. Other energy use Your charges likely decreased based on how you used energy.	- \$3.00 + \$1.00 - \$2.75 - \$1.74
Weather Your solar panels may have produced more energy, or you may have used less energy. Rate plan change Your rate plan changed to Time-of-Use (E6). Bill period You likely used less electricity because this bill period was 1 day shorter. Other energy use Your charges likely decreased based on how you used energy.	- \$3.00 + \$1.00 - \$2.75 - \$1.74 Total: - \$20.00

User Experience Variations

This section describes how the Bill Comparison widget varies for Net Metering annual billing customers and Net Billing customers.

Net Metering Annual Billing Customers

For Net Metering solar customers who are billed annually for net electricity usage, the **View Your Energy Use** link is removed from the bottom of the widget, and is replaced with the following:

- Due Date Statement: Your monthly electricity charges accrue and will be due on Mon DD, YYYY.
- Learn How Solar Billing Works link: When a customer clicks this link, they are taken to the Solar Welcome Experience in the Data Browser.

The following image is an example of the Bill Comparison widget for Net Metering annual billing customers that highlights the Due Date statement.

Electricity ****0927	•	PREVIOUS BILL LAST YE/
	Your electricity charges are about \$8 lower than your previous I That's about the same as this time last year. <u>See comparison</u> .	pill.
	Previous bill Jul 19, 2018 Jul 19, 2018 State	7, 2018
Reasons your elec	ctricity charges are about \$8 less	- \$0
Due to increased election	tricity use, your state and local taxes were lower.	•••
Minimum charges Your minimum charges	s were lower.	- \$0.
Minimum charges Your minimum charges Bill period You likely used less ele	s were lower. ectricity because this bill period was 2 days shorter.	- \$0. - \$3.
Minimum charges Your minimum charges Bill period You likely used less ele Weather Your solar panels may	s were lower. sctricity because this bill period was 2 days shorter. have produced more energy, or you may have used less energy.	- \$0 - \$3. - \$4.
Minimum charges Your minimum charges Bill period You likely used less ele Weather Your solar panels may	s were lower. ectricity because this bill period was 2 days shorter. have produced more energy, or you may have used less energy.	- \$0 - \$3 - \$4 Total - \$8
Minimum charges Your minimum charges Bill period You likely used less ele Weather Your solar panels may	s were lower. ectricity because this bill period was 2 days shorter. have produced more energy, or you may have used less energy. v electricity charges accrue and will be due on Mon DD, YYYY. AR BILLING WORKS	- \$0 - \$3 - \$4 Total - \$8

Net Billing Customers

For solar Net Billing customers, the View Your Energy Use link and the Learn How Solar Billing Works link are removed from the bottom of the widget and the following sections are added:

- 1. Rollover Credits Statement: A statement indicating the customer's current bill has more credits or less credits applied compared to their last bill.
- Comparison Statement: A statement that tells the customer if they purchased more
 or less electricity and sole more or less electricity compared to their previous bill.
 Customers can click Details to expand a new section that shows bar graphs for
 Electricity Purchased for the current and previous bill, and Electricity Sold for the
 current and previous bill.

Bill Comparison		
TOTAL BILL ELECTRICITY GAS		PREVIOUS BILL LAST YEAR
Your electricit	ty charges are about \$15 more than yo	ur previous bill.
G et 25, 2022	This bill * 5777 -Nov 24, 2022 30 days	bill • 1 2 - Dec 24, 2022
Why are my electricity charges \$1	5 higher?	
Weather Your solar panels may have produced less	s energy, or you may have used more energy.	+ \$16.0
Rate plan change Your rate plan changed to Time-of-Use (Et	6).	- \$4.2
Bill period You likely used more electricity because th	nis bill period was 1 day longer.	+ \$2.0
Rollover credits Your current bill had less rollover credits a	pplied than the previous month's bill.	+ \$4.0
Other energy use Your charges likely decreased based on h	ow you used energy. 🚯	- \$2.5
		Total + \$15.2
Compared to your previous UtilCo and sold less electric	bill, you purchased more electricity from ity to UtilCo for credits.	m Details 2
Electricity Purchased and Sr	Nd	
Each month you are charged for elect	ricity you use from the grid and are credited for e	electricity you send back to the grid.
		\$85
Electricity purchased from UtilCo		\$70
	\$7	
Electricity sold to UtilCo for credits'	\$9	
Electricity sold to UtilCo for credits	S9 This bill - Electricity purchased from This bill - Electricity sold to UtilCo fo Previous bill	UtilCo r credits

Configuration of Solar Update Notifications

This section discusses the configuration of Solar Update Notifications, which include these emails:

- Email 1: Welcome to Solar
- Email 2: Understand Your First Solar Bill
- Email 3: How's Your Solar Data Trending?
- Email 4: Was Going Solar the Right Decision?
- Email 5: Build Your Solar Expertise
- Email 6: Your First Solar Year In Review

Email 1: Welcome to Solar

The first email solar customers receive is the Welcome to Solar email, which is sent shortly after a customer connects to the solar program. This email provides positive messaging, congratulating the customer on making the move to a solar energy program.

The message also educates the customer by providing them with information about common myths associated with solar energy programs, and identifying solar-specific items they will see when they receive their first solar bill. Providing this information early in the customer's solar journey helps to set realistic expectations about how solar panels can impact their utility bill, and clarifies what their solar billing experience will look like.

The Welcome to Solar email contains these modules:

- Solar Email Header
- Solar 1 Welcome
- Solar 1 Myths
- Solar 1 Get Ready for First Bill
- Solar Email Footer

Solar Email Header

The email header introduces the reader to the email and displays the utility's logo and the customer's account number in the appropriate format.

Subject Line: <First Name>, congratulations on making the switch to solar

Company Logo: The utility's company logo displays at the top of the email.

Customer Account Number: The customer's account number displays below the logo in the format defined during the configuration process.

UtilityCo Aris Rodriguez Act ****1234

Solar 1 - Welcome Module

This module congratulates customers on going solar and welcomes them to the Solar Update Notification program.

Welcome Heading: The email begins with a statement that welcomes new solar customers to the program.

Welcome Image: Below the heading is an image depicting an energy efficient neighborhood.

Welcome Statement: This statement introduces the customer to the solar email communication program. The statement tells the user they can expect to experience new terminology and numbers on their billing statements, and tells them that they will receive additional communications in the coming months to help explain their solar bills, and help them get the most out of their solar program.



Solar 1 - Myths Module

This module discusses common myths about solar programs, and explains them so that the customer has a better understanding of how solar programs work. Dispelling common myths early in a solar customer's journey can help to improve understanding and customer satisfaction. The section can include up to five myths.

Heading Statement: The solar myths section begins with a statement that asks customers if they are familiar with some common myths about solar.

Myth Number Heading: Each myth starts with the heading "Myth #<X>". The number is automatically generated based on the sequence of the included myths, from top to bottom. You can include up to five myths in the module.

Myth Subheading: This statement describes the myth. For example, "Going solar means no more utility bills."

Myth Description: This statement provides additional information about the myth to educate the customer. For example, "Your solar panels may not produce all the power you need each month, which means you'll still be charged for some electricity."

Myth Image: Each myth has an associated image.



Solar 1 - Get Ready for First Bill Module

This module prepares customers for the new information they will see when they receive their first solar bill. This section also provides customers with access to the utility's solar billing page.

Module Heading: This section begins with a statement that notifies customers it is time to prepare for their first solar bill.

Solar Billing Image: Below the heading a billing-related image is displayed.

Explanatory Statement: This statement follows the heading, notifying the customer that their first solar bill will arrive soon, and identifies the number of items that might include new solar-related information. The number included in this statement is automatically generated based on the number of bullet points that follow the statement.

Bullet Points: The list that follows the explanatory statement can contain up to five bullet points that identify the new items a customer can expect to see on their solar bill. The bullet points must be consistent with the numbers that are included in the "Your First Solar Bill" section in the <u>second solar email</u>. Examples of bullet points that can be included in this module are:

- Your connection fee
- Your energy charges
- Your kilowatt hour credits

Learn More Statement: The list is followed by a statement telling customers how they can learn more about solar billing.

Explore Solar Billing Button: Customers can click this button to visit the utility's solar billing landing page.



Solar Email Footer

The email footer includes required information, such as the utility's address, and links to unsubscribe from emails and manage customer preferences. The footer also provides utilities with a space to include additional legal information, as needed.

Unsubscribe Link: This link enables customers to unsubscribe from the emails.

Utility Address: This statement includes the utility's address.

Legal Language: This statement can contain legal information, including copyright information, and any additional information the utility wants to include in the email message.

```
Unsubscribe from these emails
Utility name, 1911 Fort Meyer Drive, Suite 702, Arlington, VA 22209
Copyright 2012-2013 Oracle. All rights reserved.
```

User Experience Variations

This section discusses how the email can vary.

Newcomer Experience

For customers with less than 12 months of pre-solar billing data, the statement in the Solar 1 - Welcome module reads, "From new words and numbers on your bill to the basics of turning solar generation into monthly savings, there's a lot to learn. Every few months we'll share information explaining how solar power is different, tracking your costs, and helping you get the most out of your solar investment."

Note that the words "highlighting your savings" are replaced with "tracking your costs".

Email 2: Understand Your First Solar Bill

The second email solar customers receive is the Understand Your First Solar Bill email. This message arrives after Opower receives the first billed read in the data file, but before the customer receives their first solar utility bill.

This email educates customers about what they will see on their bill, and explains how the amounts are calculated. The email includes an image of the utility's standard solar bill, and calls out up to five key areas that are of importance to solar customers. The message also provides detailed information about each of the specified areas on the bill.

The Understand Your First Solar Bill email contains these modules:

- Solar Email Header
- Solar 2 Key Numbers on Bill
- Solar Email Footer

Solar Email Header

The email header introduces the reader to the email, and displays the utility's logo and the customer's account number, in the appropriate format.

Subject Line: <First Name>, get ready for your first bill since going solar

Company Logo: The utility's company logo displays at the top of the email.

Customer Account Number: The customer's account number displays below the logo in the format defined during the configuration process.

UtilityCo

Solar 2 - Key Numbers on Bill Module

Ana Rodriguez Acct ****1234

This module shows an example solar bill from the utility, and calls out the important information customers should be aware of before they receive their first bill.

Heading: The module heading notifies customers that their first solar bill is on the way.

Subheading: This statement displays below the heading, and identifies the number of important items the customer should be aware of when they receive their bill.

Bill Image: This image is a utility-provided image that shows an example of the customer's utility bill, and includes call outs that correspond to the numbers in the list at the end of the module.

List of Items: Below the image is a list that explains the items the customer should be aware of on their first utility bill. Each item in the list begins with a graphic identifying the corresponding number from the bill image. Following the image is a description of the item, which should not be more than two lines. You can include up to five items in the list. The number of items included, and the wording of each item, should correspond with the bullet points included in the Get Ready For Your First Solar Bill section in the first solar email.

Learn More About Solar Billing Button: Customers can click this button to visit the utility's solar billing landing page.

Bechric details	
Lubustle and	
	Bill Summary
E EWhused	
-44 0 -44	TOTAL AMOUNT DUE \$6.26
TAXES & FEES \$1.34	
—	
This is a connection fee you p how much energy your solar This is what you owe for elect your solar panels produce.	bay each month regardless of panels produce. tricity when you use more that

Solar Email Footer

The email footer includes required information, such as the utility's address, and links to unsubscribe from emails and manage customer preferences. The footer also provides utilities with a space to include additional legal information, as needed.

Unsubscribe Link: This link enables customers to unsubscribe from the emails.

Utility Address: This statement includes the utility's address.

Legal Language: This statement can contain legal information, including copyright information, and any additional information the utility wants to include in the email message.

```
Unsubscribe from these emails
Utility name, 1911 Fort Meyer Drive, Suite 702, Arlington, VA 22209
Copyright 2012-2013 Oracle. All rights reserved.
```

Email 3: How's Your Solar Data Trending?

The third email solar customers receive is the How's Your Solar Data Trending email. This message arrives approximately three months after a customer begins their solar program, and is triggered after Opower receives the third billed read in the data file. The content of the message varies, depending on whether the customer has saved money since switching to solar.

The message displays the average monthly charges before and after moving to solar. If the customer is not experiencing a savings since switching to solar, the message includes some information about why they might not be seeing the savings they were expecting. The message also clarifies the difference between gross and net production, and directs users to additional resources that can help explain the difference.

The How's Your Solar Data Trending email contains these modules:

- Solar Email Header
- Solar 3 Tracker
- Solar 3 Tracker Message for Non-Savers (Included only when the average monthly cost has not decreased since switching to solar.)
- Solar 3 Production Numbers Don't Match
- Solar Email Footer

Solar Email Header

The email header introduces the reader to the email, and displays the utility's logo and the customer's account number, in the appropriate format.

The following components are included in the solar email header:

Subject Line: <First Name>, let's look at your solar experience so far

Company Logo: The utility's company logo displays at the top of the email.

Customer Account Number: The customer's account number displays below the logo in the format defined during the configuration process.

UtilityCo Ana Rodriguez Acd ***1234

Solar 3 - Tracker Module

This module provides customers with an at-a-glance view of how much they are saving since moving to their solar program.

The following components are included in the Tracker module:

- Heading: The heading provides positive feedback on the customer's savings since moving to solar. This statement changes dynamically based on the customer's actual spending.
- Comparison Boxes: This graphic includes two boxes that show a comparison between the customer's average monthly electricity spending before going solar and after going solar.
- Date Range: Below the graphic, the date range used to compare pre-solar and postsolar spending is displayed. The date ranges are dynamically generated based on available customer data.
- Disclaimer Statement: Use this disclaimer to add any additional information you need to share with the customer. By default, the disclaimer is not displayed. When displayed, the default disclaimer text reads, "These charges do not include natural gas charges; electricity charges from third-party solar suppliers; or the cost of ownership, maintenance, and insurance of solar equipment." A configurable URL can also be added to the disclaimer as needed.



Solar 3 - Tracker - Message for Non-Savers Module

This module appears in the email only when the customer has not experienced savings since moving to solar. The wording reminds customers that seasonal weather can impact their savings.

The following components are included in the Tracker - Message for Non-savers module:

- Heading: The module heading reminds customers to keep the following information in mind.
- Statement: The statement explains to users how seasonal weather can impact their bill, and provides a link to additional resources.

Keep this in mind

Seasonal weather can vary quite a bit from one year to the next, and your savings could look very different in another 3 months. You can always see your most up-to-date information online at utilityco.com/myaccount.

Solar 3 - Production Numbers Don't Match Module

This module explains the difference between the numbers solar providers share with their customers and what the customer will see on their solar utility bill.

The following components are included in the Production Numbers Don't Match module:

- Heading: The heading tells customers that this module is going to help alleviate confusion about solar billing and production numbers.
- Explanatory Statement: This statement tells the user there is a reason why they are seeing different numbers from their solar provider compared to their utility. The statement reads, "Solar customers like you often wonder why solar providers show a different production number than we show on your bill. Here's the simple difference:".
- Solar Provider Graphic: This image depicts the solar provider.
- Solar Provider Subheading: This subheading identifies the solar provider. For example, "Your Solar Provider".
- Solar Provider Statement: This statement explains the meaning of the numbers the solar provider shows.
- Utility Graphic: This image depicts the utility company.
- Utility Subheading: This subheading identifies the utility company.
- Utility Statement: This statement explains the meaning of the numbers the utility company shows.
- Learn More About The Difference Button: Customers can click this button to visit the utility's solar and Net Energy Metering page.



Solar Email Footer

The email footer includes required information such as the utility's address and links to unsubscribe from emails and manage customer preferences. The footer also provides utilities with a space to include additional legal information, as needed.

The following is an example of the solar email footer:

The following components are included in the solar email footer:

- Unsubscribe Link: This link enables customers to unsubscribe from the emails.
- Utility Address: This statement includes the utility's address.
- Legal Language: This statement can contain legal information, including copyright information, and any additional information the utility wants to include in the email message.

User Experience Variations

This section discusses how the email might vary.

Newcomer with Less than 12 Months of Data

When a customer has less than 12 months of billing data with the utility before moving to a solar program, the Solar 3 - Tracker module varies as follows:

- The heading discusses how the customer is tracking, and does not indicate that they are saving.
- Comparison box 1 displays average monthly electricity charges rather than average charges before going solar.
- Comparison box 2 displays total electricity charges rather than average charges since going solar.
- The data range statement includes only the dates during which the customer has been active on their solar program.

Non-Saver Experience

When a customer's spending increases or stays the same after moving to solar, the experience varies as follows:

- The Solar 3 Tracker module heading reads, "Looks like you aren't seeing the savings you expected."
- The Solar 3 Tracker Message for Non-Savers module, described above, is included in the email.

Email 4: Was Going Solar the Right Decision?

The fourth email solar customers receive is the Was Going Solar the Right Decision email. This message arrives approximately six months after a customer begins their solar program, and is triggered after Opower receives the sixth billed read in the data file.

The message provides a look at the average solar savings the customer is experiencing since starting their solar journey, showing them their average monthly bill before solar and after solar, and showing their average monthly savings. The message also provides tips on how they can become more energy efficient and further boost their savings, and enables them to access additional energy efficiency tips online.

The Was Going Solar the Right Decision email contains the following modules:

- Solar Email Header
- Solar 4 Tracker
- Solar 4 Tracker Save Even More (Included only when average monthly costs decrease since switching to solar.)
- Solar 4 Tracker Message for Non-Savers (Included only when average monthly

costs stay the same or increase since switching to solar.)

Solar Email Footer

Solar Email Header

The email header introduces the reader to the email, and displays the utility's logo and the customer's account number in the appropriate format. The following are components of the solar email header:

- Subject Line: <First Name>, is solar saving you as much as you expected?
- Company Logo: The utility's company logo displays at the top of the email.
- Customer Account Number: The customer's account number displays below the logo in the format defined during the configuration process.

UtilityCo Aris Rodriguez Acci ***1234

Solar 4 - Tracker Module

This module provides customers with an at-a-glance view of how much they are saving since moving to their solar program. The following are components of the Tracker module:

- Heading: The heading provides positive feedback on the customer's savings since moving to solar, and reads "Congratulations, you're saving!" This statement changes dynamically based on the customer's actual spending.
- Comparison Boxes: This graphic shows a comparison between the customer's average monthly electricity spending before and after going solar, and displays the average monthly savings.
- Date Range: Below the graphic, the date range used to compare pre-solar and postsolar spending is displayed. The date ranges are dynamically generated based on available customer data.
- Disclaimer (Not depicted): Use this disclaimer to add any additional information you need to share with the customer. By default, the disclaimer is not displayed. When displayed, the default disclaimer text reads, "These charges do not include natural gas charges; electricity charges from third-party solar suppliers; or the cost of ownership, maintenance, and insurance of solar equipment." A configurable URL can also be added to the disclaimer as needed.

Solar 4 - Tracker - Save Even More Module

This module provides users with tips they can complete to become more energy efficient. This module appears in the email only if the customer is saving since moving to solar. The following are components of the *Save Even More* module:

- Heading: The heading incites users to make the most of their program.
- Statement: Below the heading, the statement reminds customers that they can still become more energy efficient, and boost their savings even more.
- Today Tip: This tip includes a subheading of "Today", an image, and an Energy Efficiency tip that shows easy tasks the customer could complete now to become more energy efficient. For example, the tip might suggest customers turn of lights when they leave a room.
- This Week Tip: This tip includes a subheading of "This Week", an image, and an Energy Efficiency tip that shows tasks the customer could complete this week to become more energy efficient. For example, the tip might tell customers to reprogram their thermostats to be more energy efficient.
- This Season Tip: This tip includes a subheading of "This Season", an image, and an Energy Efficiency tip that shows longer-term or larger tasks the customer could complete this season to become more energy efficient. For example, the tip might tell customers to replace old appliances with more efficient appliances.
- Save Even More Button: Customers can click this button to visit the utility's tip page.

Solar 4 - Tracker - Message for Non-Savers Module

This module offers customers who are not saving some possible explanations about why they have not experienced any savings since moving to a solar program. This module appears in the email only if the customer is not experiencing a savings (or has no change in savings) since moving to solar. The following are components of the Message for Non-savers module:

- Heading: The heading notifies customers that there might be some reasons they are not experiencing the savings they expected.
- Solar Image: This image shows a house with solar panels.
- Explanation Statement: The text in this module provides customers with multiple reasons that they might not be experiencing savings since switching to their solar program, which might include seasons, local weather patterns, and changes in electricity usage. The text also explains the concept of the solar rebound, and encourages customers to visit their utilities solar tips page to learn more about how they can save.
- Explore Solar Tips Button: Customers can click this button to visit the utility's solar tips page.

Solar Email Footer

The email footer includes required information, such as the utility's address, and links to unsubscribe from emails and manage customer preferences. The footer also provides utilities with a space to include additional legal information, as needed. The following are components of the solar email footer:

- Unsubscribe Link: This link enables customers to unsubscribe from the emails.
- Utility Address: This statement includes the utility's address.
- Legal Language: This statement can contain legal information, including copyright information, and any additional information the utility wants to include in the email message.

User Experience Variations

This section discusses how the email can vary.

Newcomer Experience

When a customer has less than 12 months of billing data with the utility before moving to a solar program, the Solar 4 - Tracker module varies as follows:

- The heading reads "Six months into your solar journey, here's how you're tracking."
- The heading in comparison box 1 reads "Your average monthly electricity charges".

- The heading in comparison box 2 reads "Your total electricity charges".
- The data range statement includes only the dates during which the customer has been active on their solar program. For example, "Based on electricity charges from March 2019 to August 2019."

Non-Saver Experience

When a customer's spending increases or stays the same after moving to solar, the email varies as follows:

- The Solar 4 Tracker heading changes to indicate that the customer isn't experiencing the savings they expected.
- The third comparison box displays the average monthly increase instead of the average monthly savings.
- The Solar 4 Tracker Save Even More module is omitted, and replaced with the Solar 4 - Tracker - Message for Non-Savers module.

Email 5: Build Your Solar Expertise

The fifth email solar customers receive is the Build Your Solar Expertise email. This message arrives approximately nine months after a customer begins their solar program, and is triggered after Opower receives the ninth billed read in the data file.

The message provides average monthly savings information, and additional details about how seasons, weather, and temperatures can impact energy savings and production for solar customers. The message enables users to access additional online resources, such as the Digital Self Service - Energy Management Data Browser, where they can view weather data, or the utility's online tips page.

The Build Your Solar Expertise email contains these modules:

- Solar Email Header
- Solar 5 Tracker
- Solar 5 Weather, Season, Temp
- Solar 5 EE Message for Everyone
- Solar Email Footer

Solar Email Header

The email header introduces the reader to the email, and displays the utility's logo and the customer's account number, in the appropriate format.

Subject Line: <First Name>, do you know how weather impacts solar production?

Company Logo: The utility's company logo displays at the top of the email.

Customer Account Number: The customer's account number displays below the logo in the format defined during the configuration process.

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Solar 5 - Tracker Module

This module provides customers with an at-a-glance view of how much they are saving since moving to their solar program.

Heading: The heading provides positive feedback on the customer's savings since moving to solar, and reads "Going solar is saving you money!" This statement changes dynamically based on the customer's actual spending.

Comparison Boxes: This graphic shows a comparison between the customer's average monthly electricity spending before and after going solar, and displays the average monthly savings.

Date Range: Below the graphic, the date range used to compare pre-solar and post-solar spending is displayed. The date ranges are dynamically generated based on available customer data.

Disclaimer (Not depicted): Use this disclaimer to add any additional information you need to share with the customer. By default, the disclaimer is not displayed. If it is set to display, the default disclaimer text reads, "These charges do not include natural gas charges; electricity charges from third-party solar suppliers; or the cost of ownership, maintenance, and insurance of solar equipment." A configurable URL can also be added to the disclaimer as needed.

Solar 5 - Weather, Seasons, Temp Module

This module explains to customers how seasons, temperature and weather can impact their solar production.

Heading: The module heading tells customers that this email is about seasons, temperature and weather.

Statement: This statement tells the user that seasonal changes to weather and temperature can impact a solar program.

Seasons Section: This section displays an image and discusses how seasonal changes impact the number of daylight hours and the suns angle, which can impact solar production.

Weather Section: This section displays an image and discusses how rainy days can decrease solar production, but can also help to clean dust, leaves, and pollen from solar panels, which can help increase solar production.

Temperature Section: This section displays an image and discusses how temperature can impact solar production. Depending on the locale, the statement can include temperature information in Celsius or Fahrenheit.

View Weather Statement: This statement encourages customers to view additional information about how their weather could be impacting their solar production.

View My Weather Data Button: Customers can click this button to access the Data Browser and view their weather data.

Seasons, weather, and solar production

While it's basically true that sunny skies equal solar energy, there's more to know about how seasonal differences and weather trends impact solar production. Here are a few facts to get you started.

Seasons

Winter or summer, sunny skies generate electricity. But there are fewer hours of daylight in winter and the angle of the sun is less direct, so solar production is lower.

Weather

Your panels do produce electricity on cloudy days, but less than on a sunny day. Rainy days reduce production, but also clean dust, leaves, and pollen from your panels.

Temperature

Your panels produce more efficiently at cooler temperatures. Above 77°F, production goes down a bit; but, since warm weather means longer sunny days you may not notice a difference.

View personalized graphs showing how local weather has impacted your net solar production (and your electricity costs).

VIEW MY WEATHER DATA

Solar 5 - EE Message for Everyone Module

This module reminds customers of additional things they can do to become more energy efficient, and provides them with access to energy saving tips.

Heading: The heading reminds customers that there is additional information that can help them become more efficient.

Energy Efficiency Image: This image shows examples of new technologies that can help customers become more energy efficient.

Explanatory Statement: This statement tells customers that there are many additional ways to become energy efficient, and help them get the most out of their solar investment.

See More Ways To Save Button: Customers can click this button to visit the utility's energy efficiency page.

Solar Email Footer

The email footer includes required information, such as the utility's address, and links to unsubscribe from emails and manage customer preferences. The footer also provides utilities with a space to include additional legal information, as needed.

Unsubscribe Link: This link enables customers to unsubscribe from the emails.

Utility Address: This statement includes the utility's address.

Legal Language: This statement can contain legal information, including copyright information, and any additional information the utility wants to include in the email message.

```
Unsubscribe from these emails
Utility name, 1911 Fort Meyer Drive, Suite 702, Arlington, VA 22209
Copyright 2012-2013 Oracle. All rights reserved.
```

User Experience Variations

This section discusses how the email can vary.

Newcomer Experience

When a customer has less than 12 months of billing data with the utility before moving to a solar program, the Solar 5 - Tracker module varies as follows:

- The heading tells the customer how they are tracking, rather than congratulating them on saving.
- Comparison box 1 displays average monthly electricity charges rather than before solar data.
- Comparison box 2 displays total electricity charges rather than charges after going solar.
- Comparison box 3 is not displayed.
- The data range statement includes only the dates during which the customer has been active on their solar program.

Non-Saver Experience

For customers who are not saving since moving to solar, the Solar 5 - Tracker module varies as follows:

- The heading discusses how the customer isn't saving yet.
- Comparison box 3 displays average monthly increase rather than average monthly savings.

Email 6: Your First Solar Year In Review

The sixth and final email solar customers receive is the Your First Solar Year In Review email. This message arrives approximately 12 months after a customer begins their solar program, and is triggered after Opower receives the 12th billed read in the data file.

This message provides an annual summary of the customer's electric charges compared the previous year, and highlights how much they saved by switching to solar. The message also provides easy access to the utility's online resources such as energysaving tips and solar billing resources. Finally, the message tells the customer that they will no longer receive solar emails.

The Your First Solar Year In Review email contains these modules:

- Solar Email Header
- Solar 6 Tracker
- Solar 6 Tracker EE for Savers (Included only when annual costs have decreases since switching to solar.)
- Solar 6 Tracker Message for Non-Savers (Included only when annual costs stay the same or increase since switching to solar.)
- Solar 6 Explore Data Browser
- Solar Email Footer

Solar Email Header

The email header introduces the reader to the email, and displays the utility's logo and the customer's account number, in the appropriate format.

Subject Line: <First Name>, here's your first solar year in review

Company Logo: The utility's company logo displays at the top of the email.

Customer Account Number: The customer's account number displays below the logo in the format defined during the configuration process.

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Solar 6 - Tracker Module

This module congratulates customers on the completion of one year on a solar program, and provides an at-a-glance view of how much they saved during the year.

Heading: The heading provides positive feedback on the customer's savings since moving to solar, and congratulates them on completing one year in the solar program.

Last Year*: This statement displays how much the customer's average monthly electricity charges were last year, before their solar system became operational. The asterisk directs users to the date range statement below the graphic.

This Year*: This statement displays how much the customer's average monthly electricity charges were this year, after their solar system became operational. The asterisk directs users to the date range statement below the graphic.

You Saved: This statement displays the customer's total savings compared to last year. This statement appears only if the customer experienced savings during their first year.

Date Range: Below the cost comparison, the date range used to compare pre-solar and post-solar spending is displayed. The date ranges are dynamically generated based on available customer data.

Disclaimer (Not depicted): Use this disclaimer to add any additional information you need to share with the customer. By default, the disclaimer is not displayed. If it is set to display, the default disclaimer text reads, "These charges do not include natural gas charges; electricity charges from third-party solar suppliers; or the cost of ownership, maintenance, and insurance of solar equipment." A configurable URL can also be added to the disclaimer as needed.

Congratulations on your one-year milestone with solar!		
Last year*	\$200	
This year*	\$123	
You saved	\$77	
* Annual electricity charges, March 2018 - March 2019 compared to March 2019 - March 2020		

Solar 6 - Tracker - EE for Savers Module

This module encourages customers to become more energy efficient, and appears in the email only when the customer has experienced savings since moving to solar.

Heading: The heading reminds customers that there are additional resources available to help them become more energy efficient.

Explanatory Statement: This statement tells customers that there are many additional ways to become energy efficient, and help them get the most out of their solar investment.

See More Ways To Save Button: Customers can click this button to visit the utility's energy efficiency page.

Solar 6 - Tracker - Message for Non-Savers Module

This module encourages customers to become more energy efficient, and appears in the email only when the customer has not experienced a savings since moving to solar.

Heading: The heading reminds customers that they can still start saving money using a solar system.

Explanatory Statement: This statement tells customers that there are many additional ways to become energy efficient, and help them get the most out of their solar investment.

See More Ways To Save Button: Customers can click this button to visit the utility's energy efficiency page.

Solar 6 - Explore Data Browser Module

This module directs solar customers to additional resources at the utility. Customers can use these resources to review additional information about their solar program.

Heading: The module heading reminds customers to explore their solar data.

Image: This image shows a computer screen with a graph.

Explanatory Statement: This statement explains that this is the last email communication in the solar email program. It also reminds users to be aware of how weather impacts their solar production and electricity charges. The statement reads, "This email series is at an end, but that doesn't mean you're on your own when it comes to your solar journey. We encourage you to go online to keep an eye on your solar savings and kWh credits, see how local weather has impacted your solar results, and more."

See My Solar Data Button: Customers can click this button to visit the utility's solar billing landing page.

Solar Email Footer

The email footer includes required information, such as the utility's address, and links to unsubscribe from emails and manage customer preferences. The footer also provides utilities with a space to include additional legal information, as needed.

Unsubscribe Link: This link enables customers to unsubscribe from the emails.

Utility Address: This statement includes the utility's address.

Legal Language: This statement can contain legal information, including copyright information, and any additional information the utility wants to include in the email message.

Unsubscribe from these emails Utility name, 1911 Fort Meyer Drive, Suite 702, Arlington, VA 22209 Copyright 2012-2013 Oracle. All rights reserved.

User Experience Variations

This section discusses how the email can vary.

Newcomer Experience

When a customer has less than 12 months of billing data with the utility before moving to a solar program, the Solar 6 - Tracker module is replaced with the Solar 5 - Tracker module from Email 5, and displays the following:

- The heading congratulates the customer on their one-year milestone with solar.
- Comparison box 1 displays average monthly electricity charges rather than before solar data.
- Comparison box 2 displays total electricity charges rather than after solar data.
- Comparison box 3 is omitted.

The data range statement includes only the dates during which the customer has been active on their solar program. For example, "Based on electricity charges from March 2023 to February 2024."

Non-Saver Experience

If the customer is not saving since moving to solar, the email varies as follows:

- The Solar 6 Tracker module does not display the You Saved section.
- The Solar 6 Tracker Message for Non-Savers module is included in the email in place of the Solar 6 - Tracker - EE for Savers module.

Enrollment and Delivery

This section discusses enrollment and delivery of Distributed Energy Resources features.

Enrollment and Delivery - Solar Web Features

Customers are not required to enroll in any programs to view solar web insights. These insights are automatically displayed when eligible customers access the Digital Self Service - Energy Management Data Browser, Bill Comparison, or Bill Forecast.

Enrollment and Delivery - Solar Update Notifications

This section discusses the enrollment and delivery restrictions associated with the Solar Update Notifications.

Enrollment

Customers can be enrolled to receive Solar Update Notification 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

Solar Update Notification emails are regularly scheduled communications. The rules that govern delivery of these emails include:

- Waking Hours: Solar emails must be delivered during waking hours (between 9 a.m. and 6 p.m.) in a utility-specific delivery window. You cannot choose the specific time to send.
- Weekdays: Solar emails must be delivered only on business days (Monday-Friday). They cannot be delivered on weekends.
- Delivery Frequency and Cadence: Customers receive each Solar Update Notification email one time, after meeting the necessary milestone for each communication.
- Delivery Tools: Oracle uses third-party tools to send solar. Most of these tools provide Oracle Utilities with information on bounces, opens, opt-outs, and clickthroughs.
- Emails and Attachments: For email communications, the 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.

Next Steps

After completing all required inputs in this configuration guide, complete the following steps:

- 1. Complete any other product-specific configuration guides provided to you by your Service Delivery Manager.
- 2. Submit all configuration guides and required documents to your Service Delivery Manager as an email attachment. Be sure to include the following:
 - The Oracle Utilities Opower Platform Configuration Guide
 - Up-to-date HTML, CSS, and JavaScript files for your utility website
 - Utility branding guidelines
- 3. Update the Version table of this guide with your name, the date, and a descriptive comment. See "Version" on page 66.

Note: Once submitted to Oracle, all utility inputs recorded in the configuration guides are final and cannot be modified. Ensure that all configuration inputs are accurate before submitting them.

Contacting 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 (<u>https://inside.opower.com</u>). 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.

Version

The table below is used to track the version of this document. Comments in the table indicate the latest state of the document. For example, the utility could comment "Sent draft to Oracle" or "Final Sign-off" when the completed version of this document is returned to the Service Delivery Manager for product configuration. Fill out the next row in the table with your name, today's date, and a comment.

Name	Date	Comment