

Local Government Renewable Energy Self-Generation Bill Credit Transfer Tariff (RES-BCT)

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*Taking a Holistic Approach
Toward a Sustainable Future*

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TerraVerde Renewable Partners
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Presentation Agenda

- **Benefits of a RES-BCT based solar project**
- **RES-BCT Tariff Overview**
- **Interconnection Overview**
- **Best Practices for RES-BCT Project Development**

RES-BCT Tariff Benefits

- **Install solar PV system at optimal location w/o regards for site electrical loads.**
- **Bill credits for multiple, physically dispersed TOU accounts/meters (up to 50 separate accounts)**
- **Generation system size (MWs) determined by total consumption (kWh) of benefitting accounts.**
- **Larger PV Systems = Lower Cost/Watt (leverage “economies of scale”)**
- **Customer retains ownership of the RECs**
- **3rd party financing, i.e., PPAs, are allowed**
- **Rule 21 Interconnection**

RES-BCT Tariff Overview

- **Non-NEM Bill Credit transfer for CA local governments (only) in SCE, PG&E and SDG&E territories.**
- **Program Capacity 250MW; Current Availability: SCE 95 MW, PG&E 83 MW, SDG&E 18 MW**
- **Single system capacity of up to 5MW, installed on customer's owned or leased property**
 - Generating account/site, and all Benefitting account sites/meters must be located w/in the Gov't Agency's service territory/boundary, and must be in the name of the Gov't Agency
 - Generating site must have an existing active Service Account/meter on a TOU rate schedule in the name of the Gov't Agency
- **Basis for Bill Credit:**
 - The rate schedule of the existing TOU meter at the site of the renewable generation system
 - Generation output exported to the local distribution grid under Rule 21, tracked by the Utility's meter.

RES-BCT Tariff Overview

- **Bill Credit is limited to the Utility Retained Generation component of the TOU rate Energy Charge (or “URG”)**
 - ✦ Formula: URG generation components of the Generating Account’s TOU energy charge (\$/kWh) X the kWh production from the generation system per applicable TOU periods
- **Bill Credit allocation by customer:**
 - ✦ Up to 50 different TOU “benefitting accounts” (including the generating account). Can change benefitting accounts, and account allocation percentage, once per year
 - ✦ Bill credits accumulate and are applied on 30-day billing cycle
 - ✦ Credits carry over monthly. End-of-year true up: all unused credits are applied to a designated benefitting account. Any unused credits do not carry over to the next year.

RES-BCT Tariff Overview

- Net Metering Agreements are not allowed for Generating Account, and Benefitting accounts
- Cannot use RES-BCT for accounts that use CCA or Direct Access providers
- Standby Charges: Apply to the Generating account only.

RES-BCT Tariff Interconnection Overview

- **Rule 21 Interconnection** (next to land use, the most important project feasibility variable)



Guidance:

- Initiate Interconnection Request (IR) early in feasibility assessment phase – many milestones and decision steps, each of which represents time and cost
- Available resources for initial evaluation:
 - » Utility maps (DER maps) and Interconnection “pre-application” process
 - » 3rd party consultant for more detailed assessment in advance of IR submittal

RES-BCT Tariff Interconnection Overview

- **Interconnection Request process:**
 - Determines scope and cost of interconnection (needed to finalize project budget estimate)
 - Initiate process of obtaining Generating Interconnection Agreement (GIA) - a long, multi-gate process if detailed studies are needed
 - Fast Track (up to 3MW)
 - Initial Review
 - Supplemental Review
 - Screen “Q” & “R” Review
 - Detailed Study: Independent System Impact Study or Distribution Group Study

RES-BCT Project Development Best Practices

● Rules of Thumb - System size determined by:

- 🌱 **Available acreage for 1-5MW gen facility (4-5 acres per MW)**
 - 🌱 Available flat land with good interconnection attributes, and w/o challenging land use / CEQA issues
- 🌱 **Bill credit matching analysis for all designated benefitting accounts**
 - 🌱 Assure system is not “oversized” – avoid unused credits at year end
 - 🌱 Bill credit matching requires sophisticated modeling to properly estimate benefitting accounts billing offsets
 - Preferably 2 to 3 years of 15min interval data for each account
- 🌱 **Scale is important:** larger projects (multi-MWs) yield lower \$/Watt, lower PPA prices, and higher Net Savings potential

RES-BCT Project Development Best Practices

● Rules of Thumb – Generating Account

- 🌱 Low demand operation(s) at the site of generation system
- 🌱 Small/medium TOU rate schedules offer higher URG Rates than large demand rates = higher bill credit value on a kWh basis

● Rules of Thumb – Benefitting Accounts

- 🌱 Large aggregate annual electricity consumption drives larger system sizes and more flexibility of bill credit allocation
- 🌱 A small number of benefitting accounts is easier to administrate than a large number
- 🌱 Prioritize benefitting accounts based on annual consumption, operating profile, and rate schedule
 - Water or Waste Treatment Process and constant pumping load profiles make good candidate benefitting accounts

RES-BCT Project Development Best Practices

- **Interconnection attributes:**
 - ↳ Proximity of site to Distribution lines, or Utility substation
 - ↳ Reasonable tie-in point at, or near site
 - ↳ Minimal circuit/line upgrades
- Distribution System Upgrades can have a major impact on project cost
- Supplemental Review may not be adequate for determining interconnection costs. Utility System Impact Study (SIS) will provide a detailed scope & cost breakdown

About TerraVerde Renewable Partners

Since 2009, TerraVerde has been California's leading independent solar energy advisor for public agencies

- Recognized leader in project development consulting services: Energy Efficiency, Solar PV, Energy Storage
- In house engineering, structured finance, financial modeling, EPC & PPA contracts, Owner's Rep project management, and post-installation Asset Management Services
- Serving all of California (offices in So Cal & Nor Cal)
- Solar energy industry veteran principals are directly involved in project development, financial analysis, technical specs
- Unique engagement model mitigates project risks for public agencies during development



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