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
www.tvrpllc.com
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.
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
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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