

# SMUD Interconnection Improvements

## i2X DER Interconnection Webinar

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Powering forward. Together.



Be Proactive,  
design end to  
end solutions

**What is the most effective mechanism you've used to expedite interconnection timelines, managing variable queues, and addressing speed to market for all customer sectors?**

- **2015-2016 SMUD launched Rapid Results, a 100-day change management process.**
- **Director Stakeholders available to support critical conversations, address barriers, and make timely decisions**
- **All stakeholder teams process review, clarify expectation of roles, establish it clear SLA, employee training, communication through public workshop for customers, contractors, and AHJ.**
- **Question ourselves, why do we do it, and is it still important to the success of the utility?**
- **Implement change, operationalize the process, and review annually.**

DRAFT\_SAMPLE

## Applications by Construction Type



Application Date and Service	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2021	719	546	776	676	822	775	764	715	810	815	816	675	8,909
New	496	323	500	394	510	420	479	334	393	426	400	290	4,965
Retrofit	223	223	276	282	312	355	285	381	417	389	416	385	3,944
2022	870	1,014	824	664	486	602	547	521	548	572	1,002	743	8,393
New	539	530	475	385	246	332	246	209	250	257	733	530	4,732
Retrofit	331	484	349	279	240	270	301	312	298	315	269	213	3,661
2023	392	379	363	406	529	496	422	603	719	698	455	431	5,893
New	232	214	179	190	311	332	253	397	522	541	307	302	3,780
Retrofit	160	165	184	216	218	164	169	206	197	157	148	129	2,113
2024	541	519	550	583	546	420	464	736	535	493	445	513	6,345
New	438	411	448	452	418	308	328	556	403	334	302	342	4,740
Retrofit	103	108	102	131	128	112	136	180	132	159	143	171	1,605

## Reporting and Data

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## Average Cycle Days by Step\*

\*THE CLOCK RESTARTS WHEN THE CONTRACTOR IS REQUIRED TO SUBMIT REVISIONS DUE TO DEFICIENCIES.

Customer Sector	Application Review	Technical Review	Contractor Installs	DG Meter & Installs	Other Statuses
RESIDENTIAL	1	4	249	14	9
MULTI-FAMILY	1	35	453	11	9
COMMERCIAL	1	50	384	28	28
AGRICULTURAL	3	20	642	27	20

### Application Review Success Rate

**99%**

Goal: Complete Within 5 Calendar Days

### Technical Review Success Rate

Distributed Generation (DG)

**92%**

Project Type	Planning or Design	Calendar Days
Residential AND PV Only AND < 10 kW	Design	7
Residential AND >= 10 kW	Planning	14
Residential with battery storage	Planning	14
Commercial	Planning	21

### Meter & Installs Success Rate

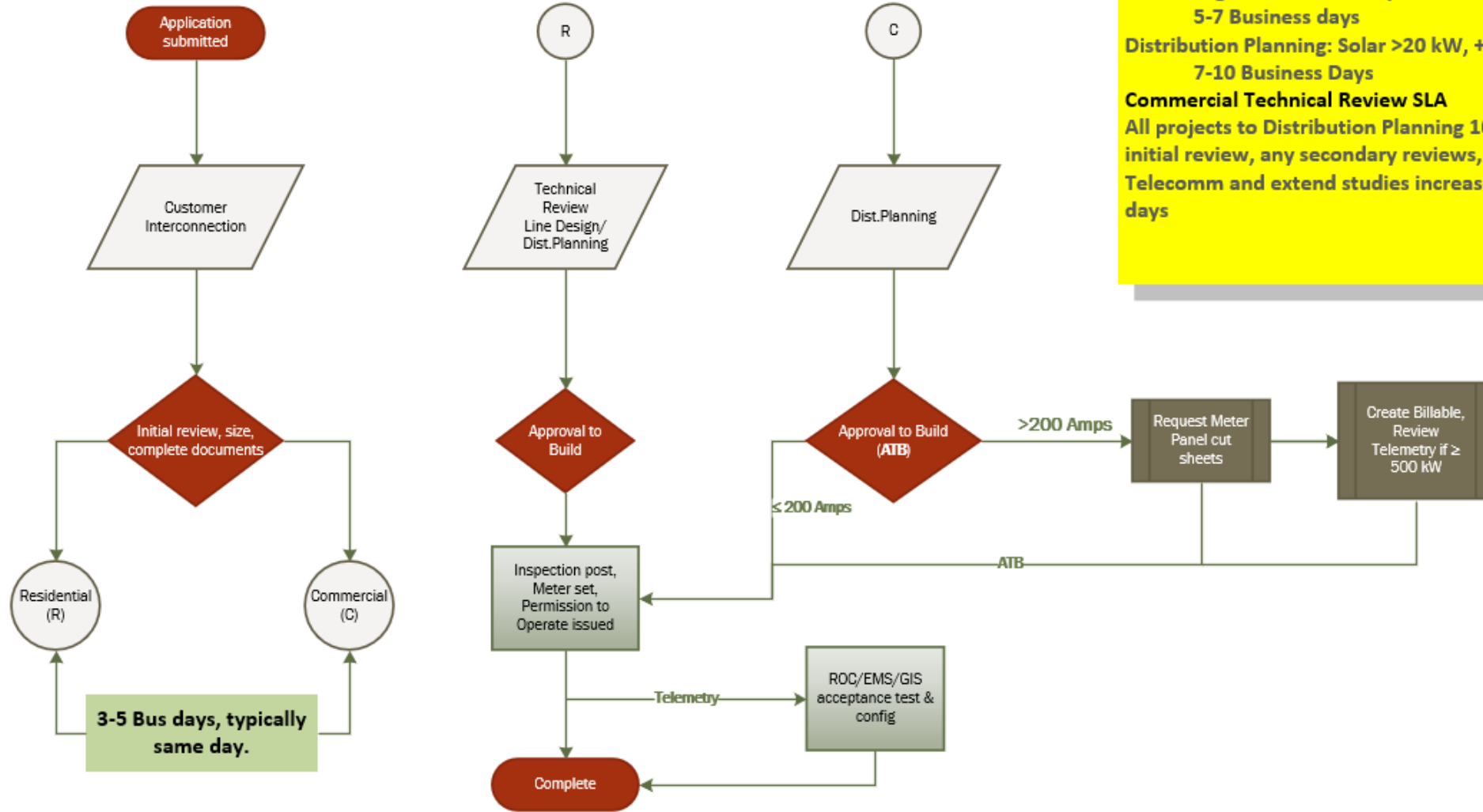
Distributed Generation (DG)

**78%**

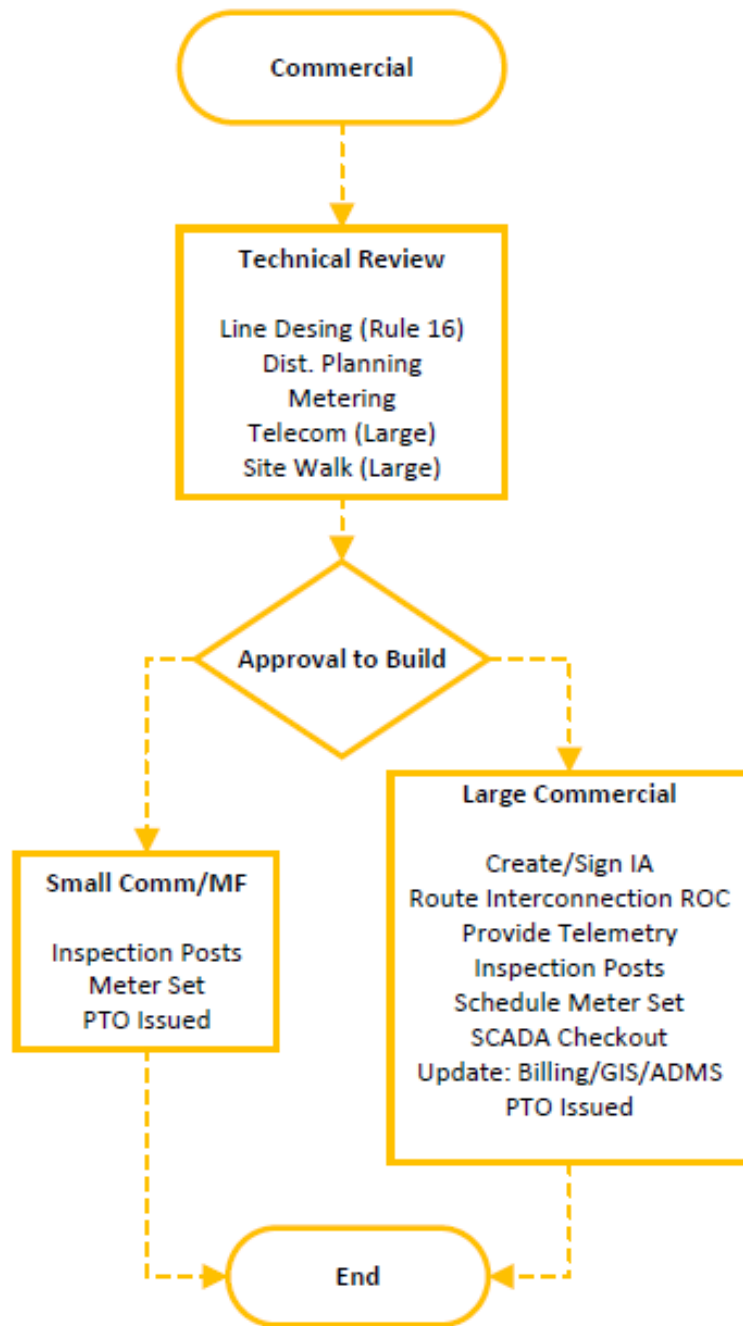
Goal: Complete Within 14 Calendar Days

Tell the story is automation improving the timeline?

# High Level Process Flow (50K')



**Residential Technical Review SLA**  
 Line Design: Solar ≤ 10 kW (no Battery projects)  
 5-7 Business days  
 Distribution Planning: Solar >20 kW, + all Battery  
 7-10 Business Days  
**Commercial Technical Review SLA**  
 All projects to Distribution Planning 10-15 Business days for initial review, any secondary reviews, including Metering or Telecomm and extend studies increase timelines, up to 60 days



# Commercial Deliverables

# More isn't always better

## Design & Construction Services

Whether you're adding an electric vehicle charger or building your dream house or a sports arena, our Design & Construction Services team is here to help you connect to SMUD's electric system.

### Getting started

- Get more information about the application and connection process for a new construction, upgrade or remodel project that will need more than a meter installation and connection of electric service.
- If you need new service or an upgrade to existing service that won't require upgrades or additions to SMUD's existing infrastructure, review our [meter and service only guidelines](#).
- Planning to build an accessory dwelling unit or secondary dwelling? Refer to our [planning tips](#) to help avoid redesign costs and project delays.

**Please note:** Each local agency has its own requirements for construction projects. We suggest that you discuss your project with the appropriate agency before submitting your project application to us. Contact your local agency for more information about their requirements.

**Please choose your desired process and get a detailed description of each:**

- New SMUD construction required
- Meter and service
- Local agency ABC
- Macro cell site application
- Small cell site application
- Downtown commercial

[SMUD.ORG/CONSTRUCTION](https://www.smud.org/construction)

## Interconnection information

Here's what you need to know about our [interconnection guidelines](#) if you're considering generating some or all of your own power.

**Note:** Interconnected energy storage will be treated as distributed generation and fall under Rule 21 interconnection requirements. Please refer to [Rate Policy 11-01](#) for policy and requirements. To qualify for Net Energy Metering (NEM), all storage must be charged with renewable energy on site.

### Interconnection and behind-the-meter distributed generation agreements

Rule and Regulation 21 sets forth the conditions and requirements for interconnecting customer-sited generation. The rate schedules for Net Energy Metering (NEM1) and the Solar and Storage Rate (SSR) apply when a customer generates electricity to offset their usage. SMUD may at its discretion require agreements for systems up to 500kW. Executed agreements are generally required for systems greater than 500kW.

- Rule and Regulation 21
- Net Metering for Qualifying Facilities
- Solar and Storage Rate

[SMUD.ORG/INTERCONNECTION](https://www.smud.org/interconnection)

## Solar for your home



### Thinking of going solar?

Learn what you should consider and explore the many ways to finance a solar system.

[Get started](#)



### Solar customers

Your rate depends on when your solar or battery system was approved for installation.

[Get more info](#)



### Battery storage

Store solar energy and use more of what you produce.

[Learn about storage](#)

[SMUD.ORG/SOLAR](https://www.smud.org/solar)

SOLAR FOR YOUR BUSINESS | 2030 CLEAN ENERGY VISION

## Virtual Solar

Helping qualified multifamily customers take advantage of solar energy.



[Home](#) > [Going Green](#) > [Virtual Solar](#)

[SMUD.ORG/VIRTUALSOLAR](https://www.smud.org/virtualsolar)

### What is virtual solar?

SMUD's Virtual Solar helps make solar energy possible for customers living in under-resourced communities. Virtual Solar is open to qualifying multifamily projects with as few as 4 units.

# Customer Interconnections

## The focus



- **Remain aligned** stand on policies, gain alignment, avoid ad hoc decisions
- **Next Gen AMI**, mitigate SLA impacts. 3FTE being release for SGIG, Contractor QA, and repairs impacting operations.
- **Solar Shares retirement**, Virtual Solar opening to Market rate



- **Utilizing AI** for processes and procedures
  - PVDI
- **Compliance with rate policies and procedures**
  - T24/CEC/Prop 26
- **Process document library**
  - Migration complete, BTA assigned

### Work in Progress

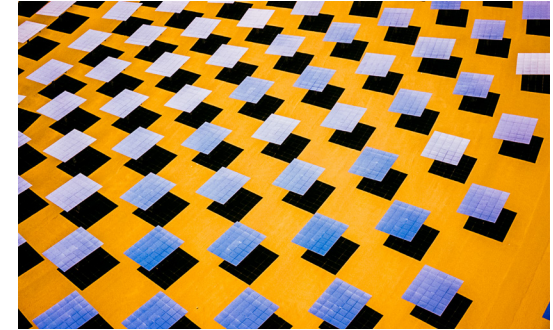
- Redesign of Virtual Solar
- Intake process for TBS and prepare for market
- Working with Metering to reduce truck rolls
- **DES/R&D/CCS/ED continued focus on aligning strategies to the existing processes rather than vice versa**
- Communicate, Clarify, and Continued improvement



- **Supporting the Customer** from beginning to end, removing barriers applications
- Efficient processing of customer applications
- **Partner with Stakeholders** to better serve customers
  - Work processes are well defined
  - Clear lines of responsibility
  - Documentation is solid



- **Manual processes**, inventoried and enhancements pending
- **Clarity on roles and responsibilities**
  - Interconnection PM change in leadership, aligning intake with new leadership direction, clarifying expectations, providing access to process docs, etc.
- **Public facing rates policies and procedures**
  - Developing annual review strategy for annual review and edits.



# Annual Interconnection Process Review

## Kick-off Process Review

- Residential
- Commercial

JULY

AUGUST

## Stakeholder / SME Review & Edits

- Distribution Planning
- Line Design
- Customer Interconnection
- Metering
- Commercial Interconnection
- Legal
- Billing

## Final Edits

- Approve Edits
- Coordinate training due to edits

SEPTEMBER

OCTOBER

## Training Requirements

- Identify

## Deploy Training

- Engage SMUD Power Academy
- Customer Support

NOVEMBER