

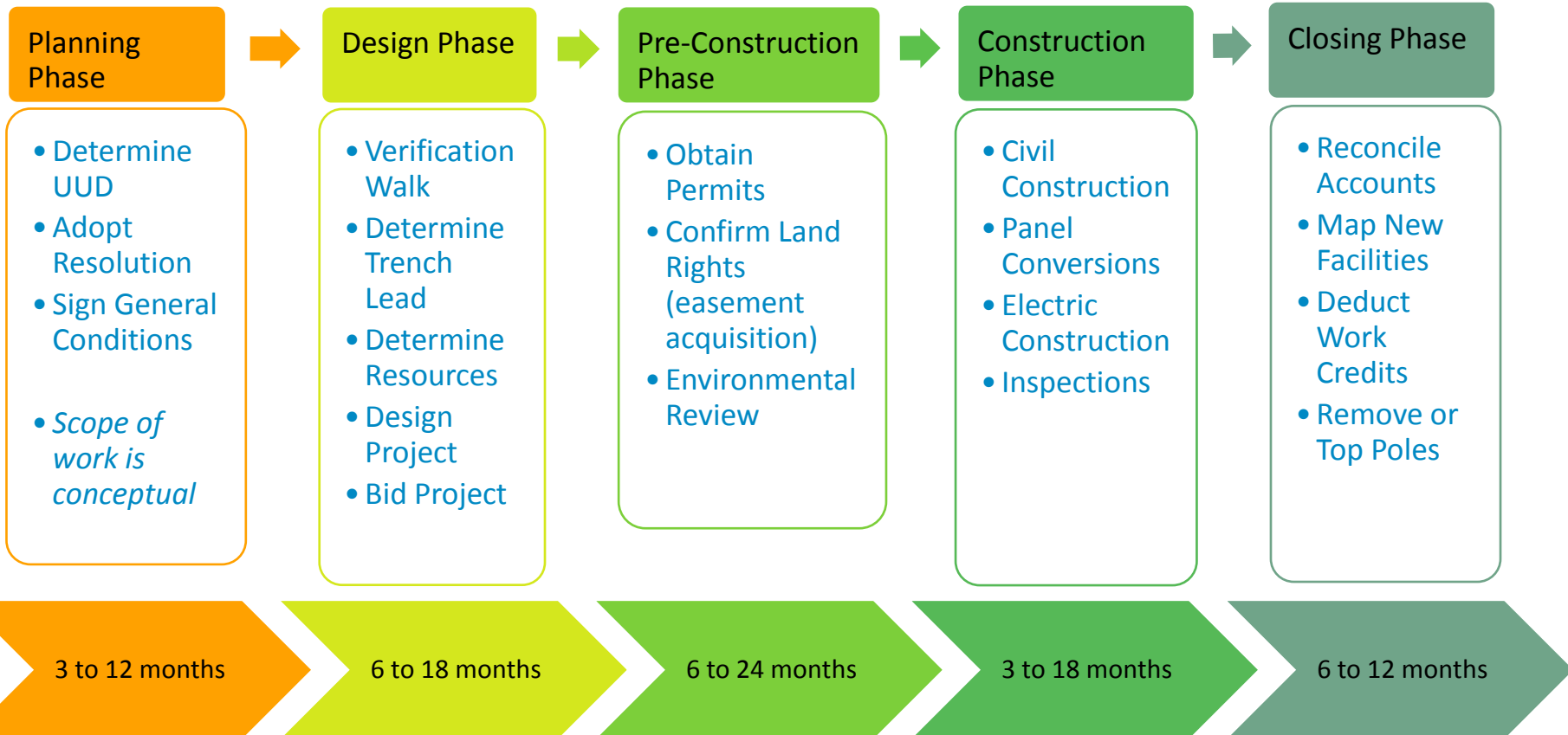
Project Completion Issues

Joint IOU Presentation by PG&E, SCE and SDG&E

Typical Project Timeline, Cost Estimation Process, Bidding Process

Project Timeline

Projects can take 2 to 7 years not including delays



Project Delays

Third Party Delays

- Land rights delay (e.g. easements acquisition challenges, land rights conflicts, etc.)
- Third party resource availability (i.e. city staff, telecommunication staff, etc.)
- 3rd party design delays (submittals and changes)
- Missing required Information (e.g. base-map, future road improvement plans, etc.)
- Joint trench delays when electric utility is not the lead
- Joint trench intent response delays
- Work restriction delays
- Permit approval (Local, State, Federal)



Project Delays (continued)

Electric Utility Delays

- Resource availability (estimating and construction resources)
- Higher priority work
- Permit application delays
- Panel conversion challenges
- Clearance constraints

Unforeseen Delays

- Work credit shortage issues
- Emergency event response (storm, wildfire, etc.)
- Unexpected soil conditions (rock, water, sugar sand)
- Inclement weather
- Unknown underground conflicts (e.g., unmarked abandoned facilities)
- Environmental / Cultural delays (e.g., contamination, artifacts, etc.)

Resourcing Strategies

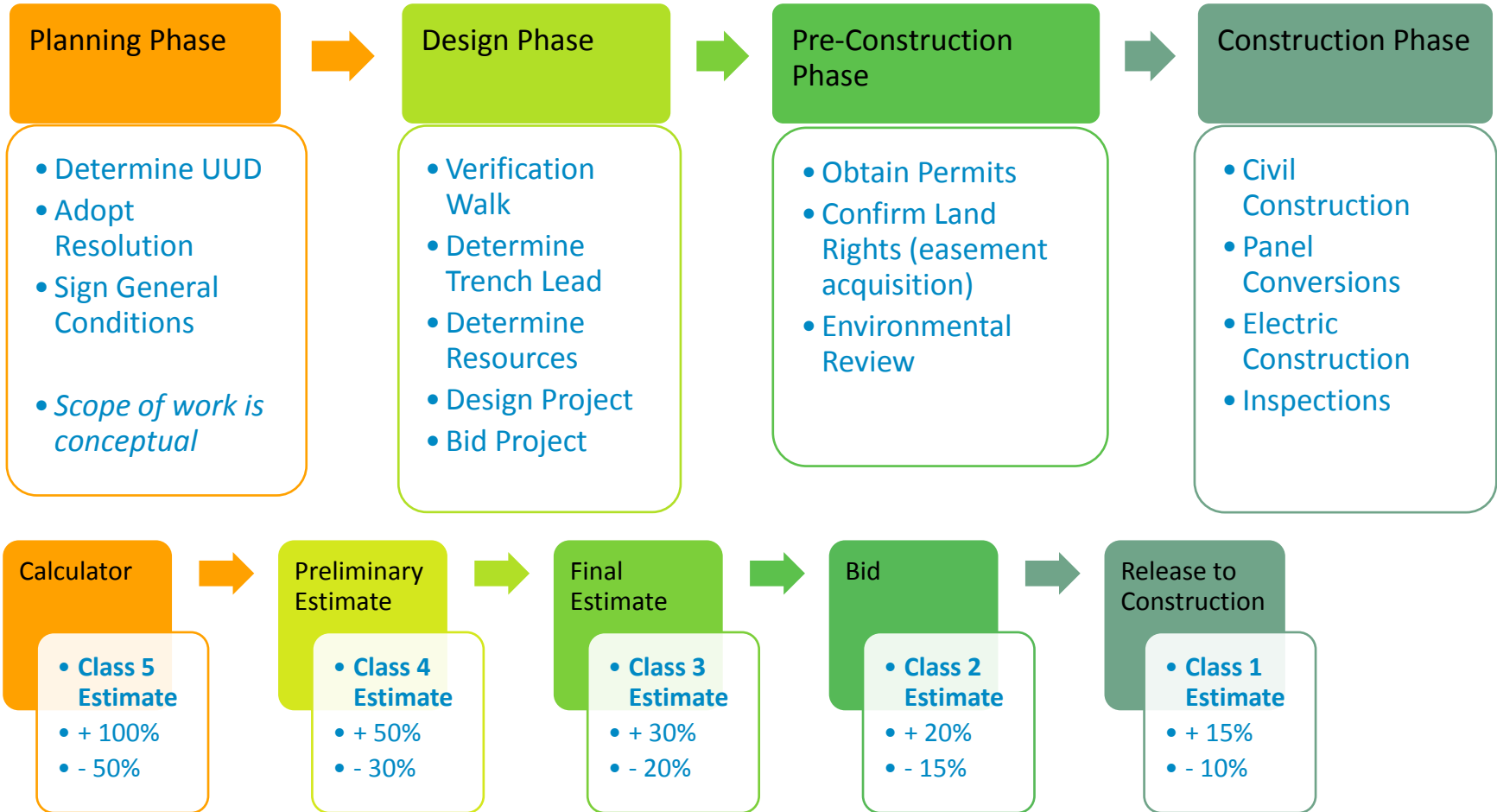
Recognizing the impact of limited internal resources on Rule 20A Projects, PG&E has explored various resourcing strategies to reduce delays.

- **Construction Only**
 - Project designed internally for both civil and electrical
 - Construction work is contracted

- **Design Build**
 - Electric design is internal
 - Civil design and construction is contracted

- **Estimate Construct (EC) Pilot**
 - Both electric and civil design is contracted
 - Construction is also contracted

Project Estimate Process



Estimates are refined over the project lifecycle

Contracting Strategies – PG&E

- PG&E allows for municipalities or telecommunication company to be the trench lead.
- Bids are for the entire project rather than providing a separate bid for each utility that has elected to be part of the joint trench.
- Division of cost is determined through the use of Form B which determines common and individual utility costs.
- Where PG&E is the trench lead, bids are evaluated through a point system taking safety, schedule/work plan, supplier diversity, and cost into consideration.
- Bids are kept confidential to promote competition.



Contracting Strategies – SCE

- Civil work for the installation of duct and structures for all Rule 20A work is competitively bid.
- SCE coordinates a joint bid process with an agreed upon list of bidders. Bidders are provided drawings for all joint trench participants.
- A joint trench allocation is prepared by SCE and approved by the joint utilities and provided to the bidders to allocate the common cost of joint trench activities.
- The contractors provide bids for each of the utilities, and an award is made to the total lowest qualified bidder.
- Separate contracts are then awarded to the successful contractor by each of the utilities.
- SCE's work is therefore kept contractually separate from the telecommunications providers.
- For the electrical installation and overhead removal, SCE crews and contract crews are both used depending upon the availability of resources.

Contracting Strategies – SDG&E

- SDG&E is typically the lead agency
- Facilitates the request from the city/county that trench accommodate all utilities.
- Bidders are allowed review of preliminary trench route to reduce time for bid submittals.
- SDG&E collects designs from all joint trench participants and distributes to all potential bidders who provide hard bids.
- Bids are typically awarded to lowest bidder.
- SDG&E enters into a joint trench agreements with all joint trench participants. Agreement also provides a discount to incentivize all utilities to be trench a participant.

Thank You!

Tamon Norimoto

PG&E Rule 20A Program Manager

Bid Process – PG&E

Request For Proposal (RFP)

- PG&E provides scope, pricing schedule, and dates
- Online portal (Power Advocates) utilized for announcing RFP

Pre-Bid Mtg

- Review job with potential bidders.
- Q&A are conducted through Power Advocate so all parties have access to the same information

Bid Submittal

- Electrical bid - lump sump per location
- Civil Bid –unit price
- Service Conversions Bid – unit price by service address
- Work plan & Schedule

Bid Review

- Points Provided for Safety, Schedule/Work Plan, Supplier Diversity, and Cost

Award

- Internal Approvals
- Contract Work Authorization (CWA)