

Reforming the Generation Interconnection Study Process

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Disclaimer

- ▶ The ideas presented in these slides only represent the views of its named authors
- ▶ The ideas presented in these presentation slides are only of conceptual nature
 - ▶ Significant work on details is still necessary before the entire process is ready for actual implementation
- ▶ These slides were accompanied by an oral discussion; the slides alone do not fully represent the presentation content

Outline

- ▶ Why is LGIP failing?
- ▶ Generation Interconnection Study Reform Proposal: Integration with Regional Planning Process
- ▶ Acknowledgements

[We use the term Interconnecting Project (IP) to generically refer to interconnecting generation throughout our presentation.]

Why Is LGIP Failing?

- ▶ LGIP effectively uses the “full” transmission planning process to study Interconnecting Projects (IPs) individually in order mainly to determine their cost responsibilities
 - ▶ LGIP process is complex and very time consuming
 - ▶ LGIP study results for a project are always subject to change due to activities of the higher queued projects
 - ▶ Due to the high cost, many a time the identified/recommended network upgrades are not even built in favor of some Special Protection Scheme (SPS) or the project derates/withdrawal
 - ▶ LGIP and the Regional Planning Process are disjoint from one another
- ▶ If the number of projects in the queue is large, specially in presence of “speculative” projects, the process can readily break down

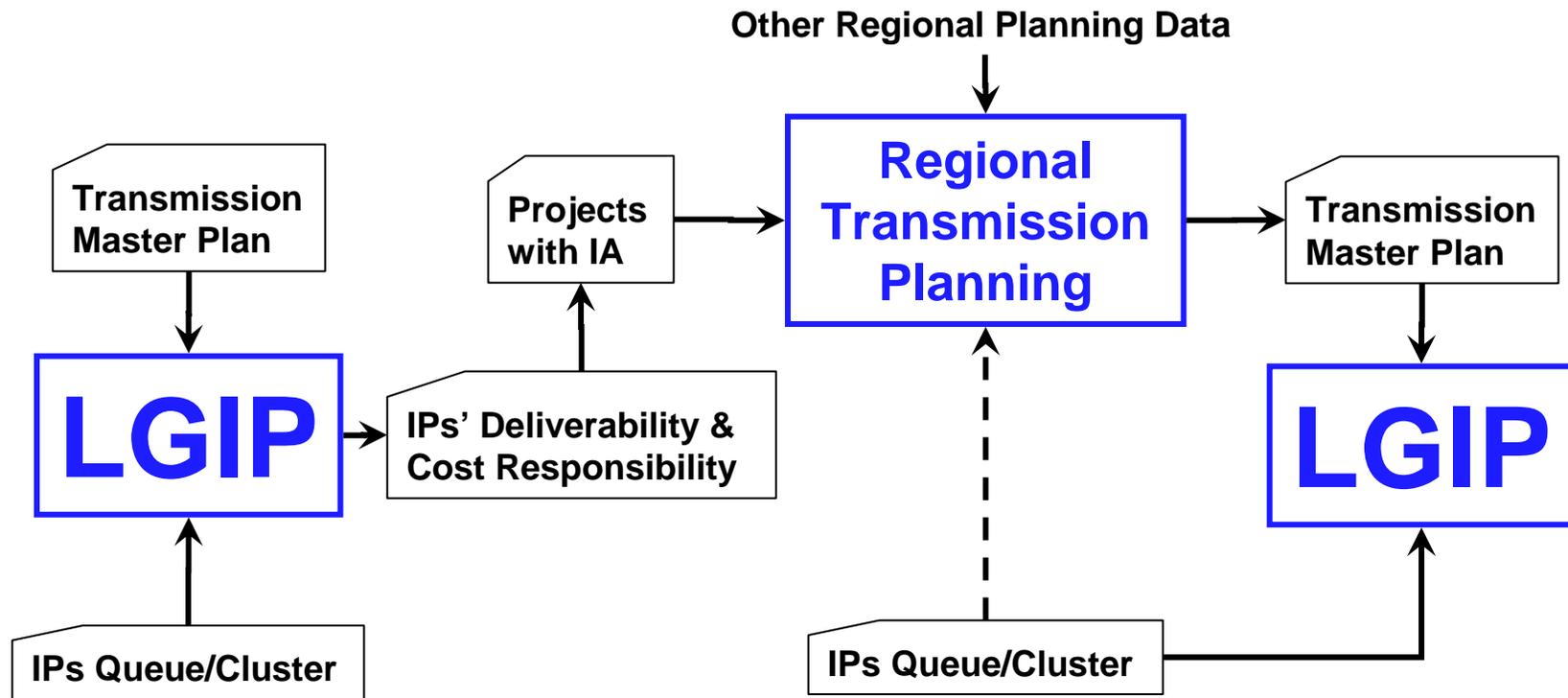
Principles for the Reform of the Generation Interconnection Study Process

- ▶ Generation interconnection study process is solely used to determine IPs' transmission cost responsibilities based on "selected level of deliverability"
 - ▶ The assigned cost responsibility is not subject to change after the study process is complete
 - This would allow IPs to effectively handle their financing
 - It also helps weed out "non-projects" – no hope that the project cost responsibility will go away
- ▶ Actual transmission build-out, including that needed for IPs, is planned through the Regional Planning Process that accounts for the interconnection of IPs' along with the need for system reliability and economic opportunities
 - ▶ Only the least-cost/best-fit transmission solution is planned for rather than a piecemeal transmission build-out through LGIP

Fundamentals of the Generation Interconnection Study Process Reform

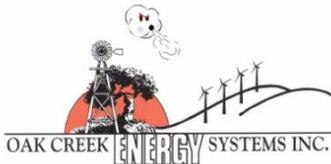
- ▶ Two main business processes should be reformed as follows:
 - ▶ Regional Planning Process is modified to better account for interconnection projects
 - All IPs with signed Interconnection Agreements (IAs) since the last regional planning study are input into the latest regional planning study
 - “Reasonable and codified” criteria are used to select the “missing generation” for the regional planning study from the lasted IP queue
 - ▶ Interconnection study process is streamlined to focus solely on developing the IPs’ transmission cost responsibilities
 - The overall transmission upgrade needs for a single IP or a cluster of IPs is quickly determined based on IPS’ desired/selected level of deliverability
 - Transmission upgrade cost responsibility are allocated among IPs based on their direct impact on the needed transmission upgrades
- ▶ The proposed reforms primarily require changes in business practices rather than tariff changes

Broad Process for the Reformed Generation Interconnection Study



Attributes of the Proposed Process

- ▶ Eventually allows the integration of generation interconnection process and regional planning process
 - ▶ All transmission upgrades are determined through regional transmission planning process based on sound transmission planning practices
 - Leading to least-cost/best-fit transmission solution
 - ▶ The process of identifying projects' transmission cost responsibility is significantly streamlined
 - IPs can choose to be studied as part of a cluster or individually
 - IPs may select their level of deliverability based on knowledge of the associated cost responsibilities
 - An IP's cost responsibility remain constant and independent of the behavior of other IPs in the queue
- ▶ The proposed process allows existing backlogged queues to be quickly cleared
- ▶ There is need for minimal tariff modifications



Acknowledgments

- ▶ As of 10/22/2007, this interconnection study reform proposal has been presented to selected staff from the following organizations:
 - ▶ CPUC
 - ▶ CalWEA
 - ▶ SCE
 - ▶ FERC
 - ▶ CAISO
- ▶ While, not necessarily agreeing with the proposal, the staff from these organizations have provided valuable feedback that has been used to improve the the proposed solution