

Ex. 404

FILED
December 5, 2014
Data Center
Missouri Public
Service Commission



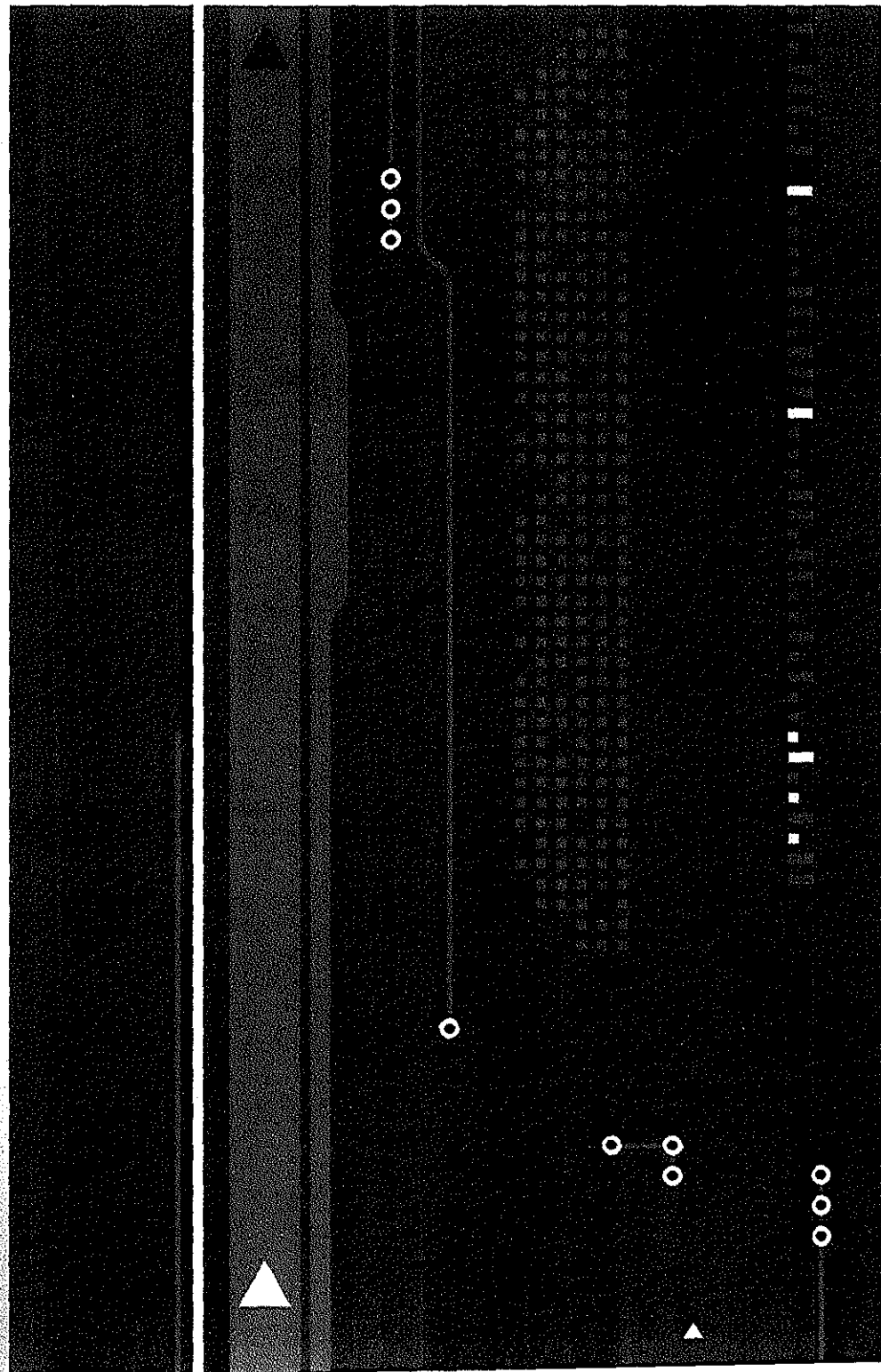
SPP *Southwest Power Pool*

Helping our members work together
to keep the lights on... today
and in the future

Exhibit No. 404
Date 11-14-14 Reporter XP
File No. EA-2014-0207

Addressing Cost Estimates and Cost Increases

Project Cost Task Force
February 18, 2011





Regional State Committee Motions

- **MOTION 1:** RSC recommends that SPP review what is the best manner to address significant cost increases and/or overruns of transmission projects that are regionally funded.
- **MOTION 2:** RSC recommends that SPP review the SPP review the Novation Process and report to the RSC by April 2011.
- **MOTION 3:** RSC recommends that SPP consider establishing design and construction standards for transmission projects at 200 kV and above that are regionally funded.
- **MOTION 4:** SPP evaluate how cost estimates are established for transmission projects before Cost Benefit Analysis are performed.
- **MOTION 5:** CAWG to study various methods on how costs that exceed some standard can be addressed with different cost allocation mechanisms and recommend strategies to RSC.



Activities since October RSC meeting

- **BOD referred Motions 1 - 4 to the SPC (Oct)**
- **Staff developed white papers**
- **Reviewed what other entities are doing**
- **Presented white papers to SPC (Dec)**
- **MOPC formed a Project Cost Task Force to expand the Staff white papers and agree to details (Jan)**



Project Cost Task Force (PCTF)

- **Further develop whitepapers for RSC Motions 1 and 4**
 - **Develop method for creating project cost estimates**
 - **Help ensure rigorous evaluation of cost estimate variances**
 - **The group consists of 10 members from different entities with experience in the following sectors:**
 - **Construction cost estimation/control, Rate-making, Project management**



Members of Project Cost Task Force (PCTF)

- **Terri Gallup, Chairman (American Electric Power)**
- **Tom Hesterman (Sunflower Electric Power Corp.)**
- **Al Ackland (Kansas City Power & Light Company)**
- **Peter Day (Oklahoma Gas and Electric Co.)**
- **Sam McGarrah (Empire District Electric Company)**
- **Brian Slocum (ITC Great Plains, LLC)**
- **Tom Littleton (Oklahoma Municipal Power Authority)**
- **Ray Harold (Midwest Energy)**
- **Dave Kimball (Nebraska Public Power District)**
- **Jason Fortik (Lincoln Electric System)**



Strategic Planning Task Force Meeting (Feb)

- **SPC task force generally supportive of the direction of
whitepaper**
- **Provided Guidance on Tracking/Cost Estimates**
 - **PCTF should define what needs to be included in each
level of estimate (i.e., everything that the TO needs to
provide to SPP and everything that SPP is to provide to
each TO to develop consistent estimates)**
 - **PCTF should establish the bandwidth percentages at each
estimate level**




Strategic Planning Task Force Meeting

- **Form Group to provide Guidance on projects with estimates outside a bandwidth (Project Cost Working Group)**
 - **These recommendations can include restudies, though the task force did not identify automatic triggers**
 - **These recommendations would follow SPP's existing processes for approval to the Board**
 - **These recommendations should not include reallocation of the costs related to the variance**
 - **These recommendations could include a revocation of the NTC by the BOD**

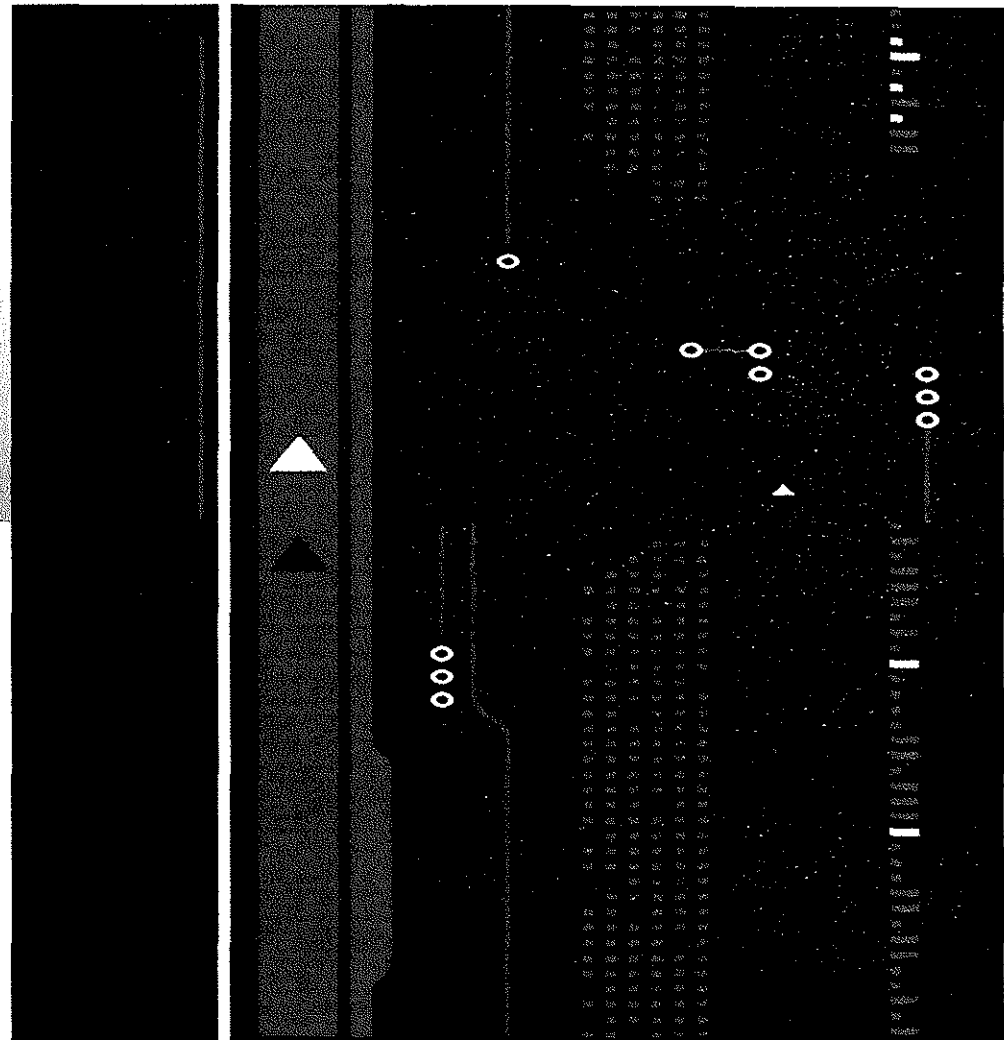


Today's Goals

- **Further develop whitepapers for RSC Motions 1 and 4**
 - **Start with SPP's strawman document**
 - **Refine whitepaper for Motion 4: Cost Estimate Standard**
 - **Refine whitepaper for Motion 1: Cost Variances**

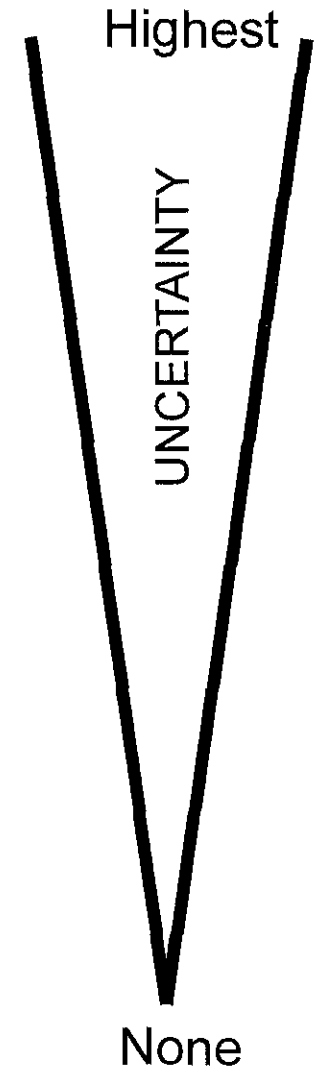
 **SPP** *Southwest*
Motion 4: *Power Pool*

Cost Estimate Standard

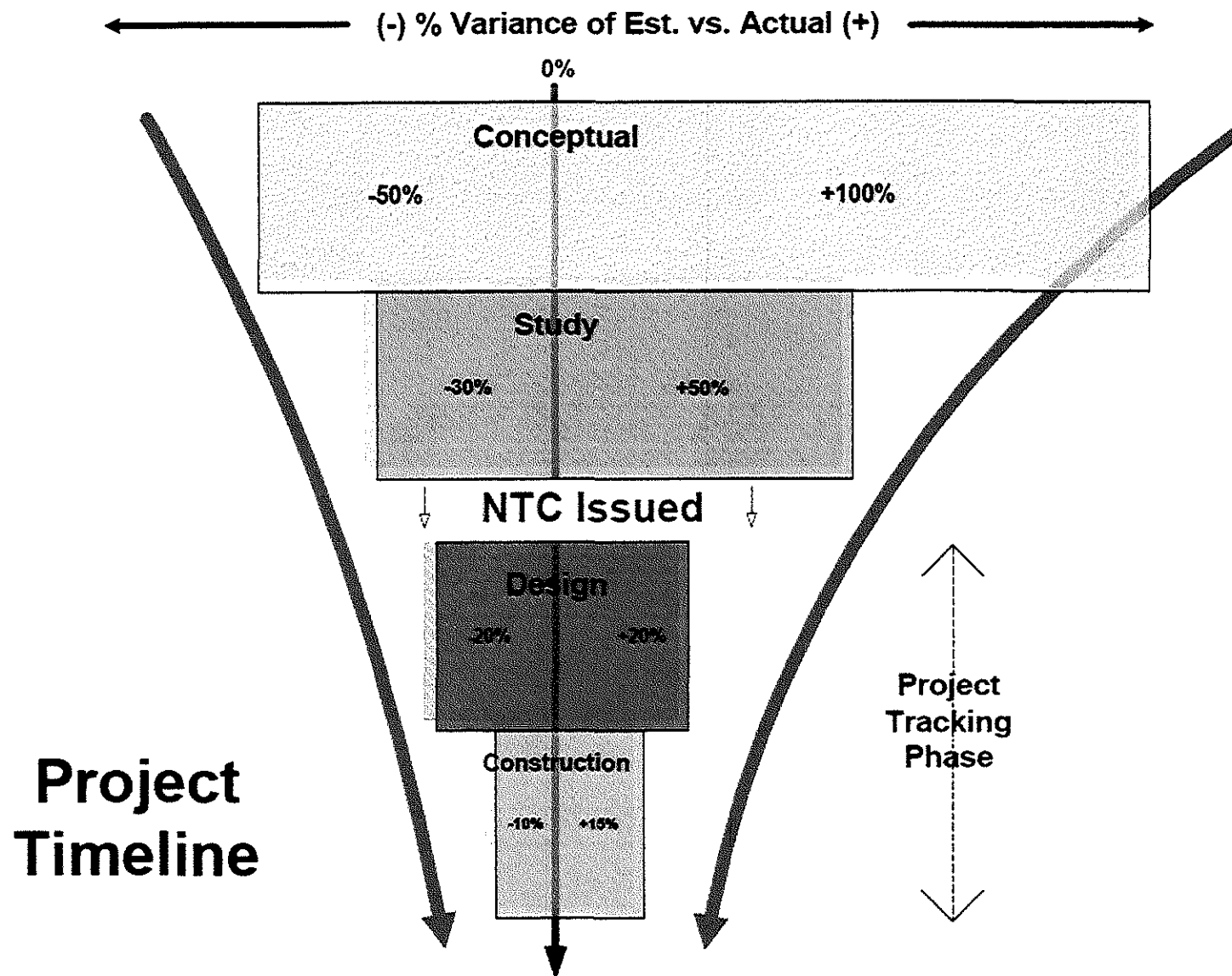


Estimating Before and After NTC – Motion 4

Conceptual Estimate	<ul style="list-style-type: none"> •ITP20 •ITP10 	<ul style="list-style-type: none"> •Based on historical costs •Rough straight line path – no detail
Study Estimate	<ul style="list-style-type: none"> •ITP10 •ITPNT 	<ul style="list-style-type: none"> •Rough measure of Distance •Based on Historical Costs •More refined review provided to SPP
NTC issued		
Design Estimate	<ul style="list-style-type: none"> •Construction Design 	<ul style="list-style-type: none"> •Detailed alternatives •Firm Routing •Known Environmental Issues
Construction Estimate	<ul style="list-style-type: none"> •Build the project 	<ul style="list-style-type: none"> •All Labor, Material, Equipment, Contingencies
Actual Cost		



Project Cost Estimating Process (4 Stages)



Motion 4: Cost Estimate Standard

Estimate Name	Stage	Level of Project Definition	End Usage	Precision and Range	Suggested Contingency
Conceptual	1	0% to 10%	Concept screening for ITP20/ITP10	-50% to + 100%	30% to 50%
Study	2	10% to 40%	Study of feasibility and plan development for ITP10/ITPNT	-30% to +50%	15% to 30%
NTC Project Estimate	3			-20% to +20%	
Design	4	40% to 70%	Construction design after NTC issued	-20% to +20%	10% to 20%
Construction	5	70% to 100%	Build the project	-10% to +15%	5% to 10%



Standardized Cost Estimate Application



Standardized Cost
Estimate Application

Standardized Cost Estimate Application (SCEA)

Project Description			
Estimate Provider			
Estimate Date			
In-Service Date			
Year Basis of Dollars Used in Estimate			
	Details	Cost Estimate	Comments
Conductor	Size		
	Design		
	Electrical Capacity (amps)		
	Other		
Structure	Type		
	Material		
	Base		
	NESC Assumption		
	Dead Ends		
Substations	Underbuild		
	Transformers		
	Breaker Scheme		
	Protection Scheme		
Construction Labor	Voltage Control		
	Amount		
Right of Way (ROW)	ROW (Mileage)		
	ROW Condition (e.g., Urban, Rural, etc.)		
Eng. Design, Project Management, Permitting	Permitting/Certifications		
	Escalation Rate		
	Eng. Design/Proj. Mang.		
Loadings	Type I		
Other Cost	Other Cost Factor Notes		
Construction Financing Type	Construction Work In Progress or Allowance for Funds Used During Construction		Includes Cost of Capital and Taxes associated with construction financing
Construction Financing Recovery	Yearly Revenue Requirement for CWIP or Amount of Incremental Rate Base to be added for AFUDC		% debt v. % equity may also be useful but not required if they self report all estimate values.
Cost Allocation Method	Is Regional Recovery approved for this project? All or partial? Maybe entered by SPP Planning Resource?		Also should include project type here: ie. Regional Reliability, GI, Sponsored, etc.
Construction Inflation	Use only if estimates are given in current dollars where n=(in-service year – estimate year), i=construction inflation %, say 2.5%, suggest sticking with nominal \$ to avoid lesser than annualized compounding periods	\$ Sub-Total * (1+i)^n	Inflates sub-total before contingency to move from current \$ to nominal \$
Sub-Total	Sub-Total of all		
% Contingency	Dollar Amount of Contingency Used in Estimate	% Contingency * \$ Sub-Total	Contingency % may be adjusted to match confidence of estimate
Grand Total Cost			

Slide 14

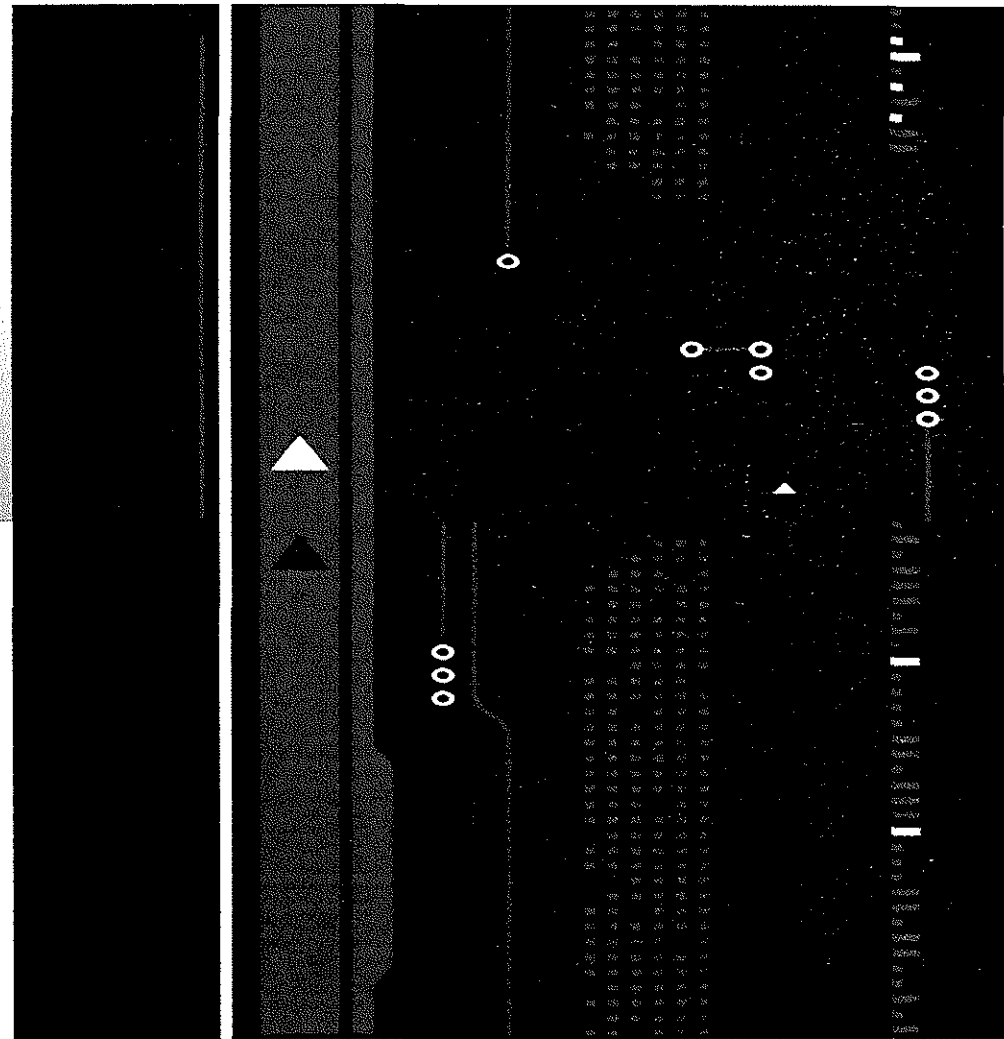
A3

this is a new slide. one of the objects can be deleted.

Author, 2/17/2011

 **SPP** Southwest
Motion Power Pool

Cost Variances





Staff Proposed Process Improvements – Motion 1

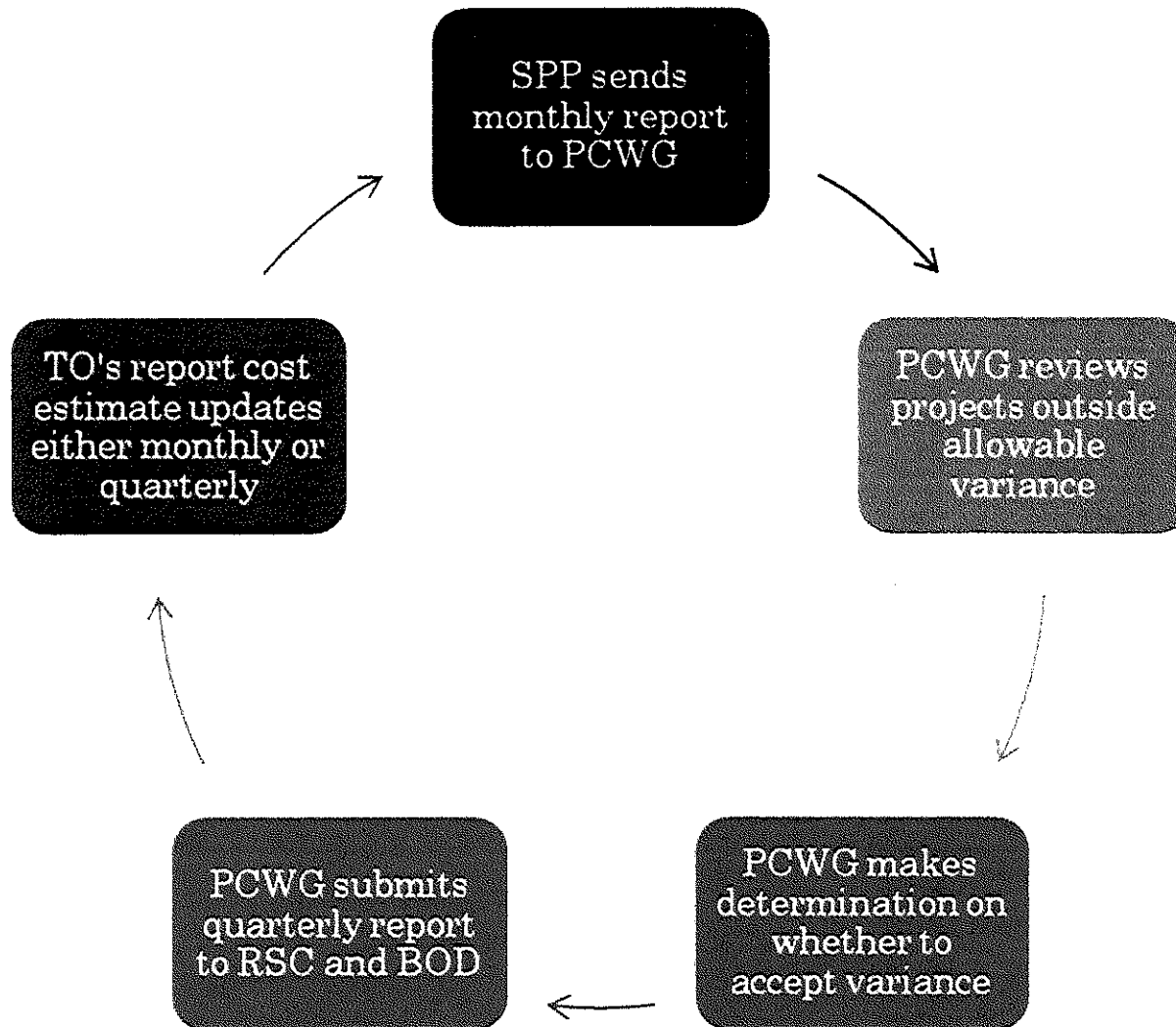
- **Baseline cost estimate used at issuance of NTC**
 - **Detailed estimate required**
- **Baseline estimate utilized to compare to actual cost**
- **Independent group (PCWG) formed to inquire into the reasonableness of any variance outside a predetermined bandwidth**
- **Determination if the project is still feasible**
- **PCWG's recommendation will be presented to TWG, MOPC, RSC and BOD for quarterly review**



Project Cost Working Group (PCWG) Charter

- **Project Cost Working Group should:**
 - Provide monthly review of regional projects with estimated costs outside threshold
 - Recommend next steps of a project to MOPC and ultimately to the BOD
 - PCWG should not recommend allocation of overages but instead issue recommendation for revocation of the NTC or continuance of project
 - Reset project tracking estimate baselines for projects once they have been reviewed when appropriate
 - Provide quarterly report to MOPC

PCWG Review Cycle





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