

Instructions and Summary

Award Number: DE-DOA-0000068
Award Recipient: Western Governors'

Date of Submission: Western Governors' Association
Form submitted by: (May be award recipient or sub-

**Please read the instructions on each page before starting.
If you have any questions, please ask your DOE contact. It will save you time!**

On this form, provide detailed support for the estimated project costs identified on the SF-424A form (Budget).

- The dollar amounts on this page must match the amounts on the associated SF-424A.
- The award recipient and each sub-recipient with estimated costs of \$100,000 or more must complete this form and a SF-424A form.
- The total budget presented on this form and on the SF424A must include both Federal (DOE), and Non-Federal (cost share) portions, thereby reflecting TOTAL PROJECT COSTS proposed.
- For costs in each Object Class Category on the SF-424A, complete the corresponding worksheet on this form (tab at the bottom of the page).
- All costs incurred by the preparer's sub-recipients, vendors, contractors, consultants and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

(Note: The values in this summary table are from entries made in each budget category sheet.)

CATEGORY	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Budget Period 4 Costs	Budget Period 5 Costs	Total Costs	Project Costs %	Comments (Add comments as needed)
a. Personnel	\$222,334	\$243,755	\$165,107	\$107,390	\$32,753	\$771,340	2.9%	
b. Fringe Benefits	\$96,679	\$106,146	\$72,250	\$43,663	\$14,348	\$333,085	1.2%	
c. Travel	\$189,600	\$177,600	\$60,800	\$19,200	\$9,600	\$456,800	1.7%	
d. Equipment	\$0	\$0		\$0		\$0	0.0%	
e. Supplies	\$0	\$0		\$0		\$0	0.0%	
f. Contractual								
Sub-recipient	\$1,546,520	\$1,546,413	\$1,269,704	\$1,106,145	\$940,415	\$6,409,197	23.7%	
FFRDC	\$3,831,667	\$4,096,517	\$3,604,016	\$714,000	\$730,000	\$12,976,200	48.0%	
Vendor	\$4,032,295	\$762,964	\$331,801	\$17,500	\$0	\$5,144,560	19.0%	
Total Contractual	\$9,410,482	\$6,405,894	\$5,205,521	\$1,837,645	\$1,670,415	\$24,529,957	90.7%	
g. Construction	\$0	\$0		\$0		\$0	0.0%	
h. Other Direct Costs	\$46,850	\$45,950	\$46,000	\$5,250	\$16,250	\$160,300	0.6%	
i. Indirect Charges	\$227,480	\$249,754	\$169,972	\$102,719	\$33,765	\$783,690	2.9%	
Total Project Costs	\$10,193,425	\$7,229,099	\$5,719,650	\$2,115,867	\$1,714,130	\$27,035,172	100.0%	

Additional Explanations/Comments (as necessary)

b. Fringe Benefits

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total
Rate applied:	0.0%	0.0%	0.0%	0.0%	0.0%	
Total fringe requested:	\$96,679	\$106,146	\$72,250	\$43,663	\$14,348	\$333,085

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information, if it has not already been provided to the Contracting Officer, OR if it has changed since it was. Calculate the fringe rate and enter the total amount in Section B, line 6.b. ("Fringe Benefits") of form SF-424A.

☐ A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.
(When this option is selected, a presentation of the budget that demonstrates the application of the approved rate, to arrive at the proposed fringes benefits dollars should also be provided.)

☒ **There is not a current, federally approved rate agreement negotiated and available.**
(When this option is checked, the entity preparing this form shall submit a rate proposal in the format provided at the following website, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Go to <https://www.eere-pmc.energy.gov/forms.aspx> and select PMC 400.2 Sample Rate Proposal.)

Additional explanation/comments (as necessary)

Purpose of travel	No. of Travelers	Depart From (not required for domestic travel)	Destination (not required for domestic travel)	No. of Days	Cost per Traveler	Cost per Trip	Basis for Estimating Costs
Budget Period 1							
Domestic Travel - Task 1.a							
WGA Staff travel planning meetings (2/year)	4			1.5	\$800	\$3,200	Past Costs
WGA Staff attend select discussion group mtgs (2 staff * 4/year)	16			1.5	\$800	\$12,800	Past Costs
State Travel 0 Regional Discussion Groups (4 groups created of an average of 4 states each. Meetings will be held in one of the four states necessitating travel by 3 states. Two people per state per meeting. 8 meetings per group over a 2 year period)	96			1.5	\$800	\$76,800	Past Costs
Domestic Travel - Task 1.b							
Consultant - siting workshops	2			1.5	\$800	\$1,600	Past Costs
Consultant - facilitator travel - 1 permitting workshops & siting wkshp	4			1.5	\$800	\$3,200	Past Costs
Cost Allocation Consultant travel (1 mtgs / 2 staff)	2			1.5	\$800	\$1,600	Past Costs
WGA staff Travel - siting workshops (1 mtg/ 3 staff)	3			1.5	\$800	\$2,400	Past Costs
WGA Permitting Forum (1 mtg/3 staff)	3			1.5	\$800	\$2,400	Past Costs
WGA Cost Allocation Mtg (1 mtg/2 staff)	2			1.5	\$800	\$1,600	Past Costs
STATE - Siting workshop (11 state emp/1.5 days)	11			1.5	\$800	\$8,800	Past Costs
STATE - Permitting Forum (10 state emp/forum)	10			1.5	\$800	\$8,000	Past Costs
STATE - Cost Allocation Mtg (17 per mtg)	17			1.5	\$800	\$13,600	Past Costs
Domestic Travel - Task 1.c							
WGA staff - Attend key task mtgs (2 staff/2 year)	4			1.5	\$800	\$3,200	Past Costs
WGA staff - present transmission updates to various entities (2qtr)	8			1.5	\$800	\$6,400	Past Costs
WGETAC member travel (1 mtgs/10 members)	10			1.5	\$800	\$8,000	Past Costs
Domestic Travel - Task 2.b.							
Travel to lab for coordination (2 staff/2 trips)	4			1.5	\$800	\$3,200	Past Costs
Domestic Travel - Task 3						\$0	
Consultant travel to evaluate pilot projects (3/year 1 consultant)	3			1.5	\$800	\$2,400	Past Costs
WGA Staff travel to evaluate pilot projected (3/year 1 staff)	3			1.5	\$800	\$2,400	Past Costs
Domestic Travel - Task 4 - 6							
WGA staff travel to participate in scenario development (6 mtgs/yr and 2 staff)	12			1.5	\$800	\$9,600	Past Costs
Domestic Travel - Task 7							
WGA staff - meet with contractor on water assessments	2			1.5	\$800	\$1,600	Past Costs
WSWC presentations (2 staff - 1 mtg)	2			1.5	\$800	\$1,600	Past Costs
Water workshops (2 staff/2 workshops)	4			1.5	\$800	\$3,200	Past Costs
State water resource mtrs workshop (10 states/1.5 psn state)	15			1.5	\$800	\$12,000	Past Costs
						\$0	
						\$0	
Budget Period 1 Total						\$189,600	

Purpose of travel	No. of Travelers	Depart From (not required for domestic travel)	Destination (not required for domestic travel)	No. of Days	Cost per Traveler	Cost per Trip	Basis for Estimating Costs
Budget Period 2							
Domestic Travel - Task 1.a							
WGA Staff travel planning meetings (2/year)	4			1.5	\$800	\$3,200	Past Costs
WGA Staff attend select discussion group mtgs (2 staff * 3/year)	16			1.5	\$800	\$12,800	Past Costs
State Travel to Regional Discussion Groups (4 groups created of an average of 4 states each. Meetings will be held in one of the four states necessitating travel by 3 states. Two people per state per meeting. 8 meetings per group over a 2 year period)	96			1.5	\$800	\$76,800	Past Costs
Domestic Travel - Task 1.b							
Consultant - facilitator permitting workshops (2 staff/2mtgs)	4			1.5	\$800	\$3,200	Past Costs
Cost Allocation Consultant travel (1 mtgs / 2 staff)	2			1.5	\$800	\$1,600	Past Costs
WGA Permitting Forum (2 mtg/3 staff)	6			1.5	\$800	\$4,800	Past Costs
WGA Cost Allocation stakeholder mtg (2 staff)	2			1.5	\$800	\$1,600	Past Costs
STATE - Permitting Forum (10 state emp/forum 1 forums)	10			1.5	\$800	\$8,000	Past Costs
STATE - Cost Allocation Mtg	17			1.5	\$800	\$13,600	Past Costs
Domestic Travel - Task 1.c							
WGA staff - Attend key task mtgs (2 staff/2 year)	5			1.5	\$800	\$4,000	Past Costs
WGA staff - present transmission updates to various entities (2qtr)	8			1.5	\$800	\$6,400	Past Costs
WGETAC member travel (2 mtgs/10 members)	10			1.5	\$800	\$8,000	Past Costs
Domestic Travel - Task 1.c							
Travel to lab for coordination (2 staff/2 trips)	4			1.5	\$800	\$3,200	Past Costs
Travel to CCS meeting (3 staff)	3			1.5	\$800	\$2,400	Past Costs
Domestic Travel - Task 3							
Consultant travel pilot projects/recommendation summary mtg	3			1.5	\$800	\$2,400	Past Costs
WGA staff travel pilot projects and recommendation summary	3			1.5	\$800	\$2,400	Past Costs
Domestic Travel - Task 4 - 6							
WGA staff travel to participate in scenario development (6 mtgs/yr and 2 staff)	12			1.5	\$800	\$9,600	Past Costs
Domestic Travel - Task 7							
Water workshops (2 staff/1 workshops)	2			1.5	\$800	\$1,600	Past Costs
State water resource mngs workshop (10 states/1.5 psn state)	15			1.5	\$800	\$12,000	Past Costs
						\$0	
						\$0	
Budget Period 2 Total						\$177,600	
Budget Period 3							
Domestic Travel - Task 1.b							
WGA Cost Allocation Policy Rec Mtg (3 staff)	3			1.5	\$800	\$2,400	Past Costs
Facilitator Cost Allocation Policy Mtg (2 staff)	2			1.5	\$800	\$1,600	Past Costs
STATE Cost Allocation Policy Mtg (17 state travelers)	17			1.5	\$800	\$13,600	Past Costs
Domestic Travel - Task 1.c							
WGA staff - Attend key task mtgs (2 staff/2 year)	4			1.5	\$800	\$3,200	Past Costs

Purpose of travel	No. of Travelers	Depart From (not required for domestic travel)	Destination (not required for domestic travel)	No. of Days	Cost per Traveler	Cost per Trip	Basis for Estimating Costs
WGA staff - present transmission updates to various entities (2qtr)	8			1.5	\$800	\$6,400	Past Costs
WGETAC member travel (1 mtgs/10 members)	10			1.5	\$800	\$8,000	Past Costs
Domestic Travel - Task 4-6						\$0	Past Costs
WGA staff travel to participate in scenario development (6 mtgs/yr and 2 staff)	12			1.5	\$800	\$9,600	Past Costs
Domestic Travel - Task 7						\$0	Past Costs
Water Policy Workshop (10 states/2 ppl/state)	20			1.5	\$800	\$16,000	Past Costs
					\$800	\$0	
						\$0	
						\$0	
						\$0	
Budget Period 3 Total						\$60,800	
Budget Period 4							
Domestic Travel - Task 1.c						\$0	
WGA staff - Attend key task mtgs (2 staff/2 year)	4			1.5	\$800	\$3,200	Past Costs
WGA staff - present transmission updates to various entities	3			1.5	\$800	\$2,400	Past Costs
WGETAC member travel (1 mtgs/5 members)	5			1.5	\$800	\$4,000	Past Costs
Domestic Travel - Task 4-6						\$0	Past Costs
WGA staff travel to participate in scenario development (6 mtgs/yr and 2 staff)	12			1.5	\$800	\$9,600	Past Costs
						\$0	
						\$0	
Budget Period 4 Total						\$19,200	
Budget Period 5							
Domestic Travel - Task 1.c							
WGA staff - Attend key task mtgs	1			1.5	\$800	\$800	Past Costs
WGA staff - present transmission updates to various entities	2			1.5	\$800	\$1,600	Past Costs
WGETAC member travel (1 mtgs/5 members)	5			1.5	\$800	\$4,000	Past Costs
Domestic Travel - Task 4-6						\$0	Past Costs
WGA staff travel to participate in scenario development (2 mtgs/yr and 2 staff)	4			1.5	\$800	\$3,200	Past Costs
						\$0	
						\$0	
						\$0	
Budget Period 5 Total						\$9,600	
PROJECT TOTAL						\$456,800	

f. Contractual**PLEASE READ!!!**

The entity completing this form must provide all costs related to sub-recipients, vendors, contractors, consultants and FFRDC partners in the applicable boxes below.

Sub-recipients (partners, sub-awardees):

For each sub-recipient with total project costs of \$100,000 or more, a separate SF-424A budget and PMC123.1 budget justification form must be submitted. These sub-recipient forms may be completed by either the sub-recipients themselves or by the preparer of this form. The budget totals on the sub-recipient's forms must match the sub-recipient entries below.

The preparer of this form need only provide further support of the completed sub-recipient budget forms as they deem necessary. The support to justify the budgets of sub-recipients with estimated costs less than \$100,000 may be in any format, and at a minimum should provide what Statement of Project Objectives task(s) are being performed, the purpose/need for the effort, and a basis of the estimated costs that is considered sufficient for DOE evaluation.

Vendors (includes contractors and consultants):

List all vendors, contractors and consultants supplying commercial supplies or services used to support the project. The support to justify vendor costs (in any amount) should provide the purpose for the products or services and a basis of the estimated costs that is considered sufficient for DOE evaluation.

Federal Research and Development Centers (FFRDCs):

For FFRDC partners, award recipient will provide a Field Work Proposal (if not already provided with the original application), along with the FFRDC labor mix and hours, by category and FFRDC major purchases greater than \$25,000, including Quantity, Unit Cost, Basis of Cost, and Justification. The award recipient may allow the FFRDC to provide this information directly to DOE.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Budget Period 4 Costs	Budget Period 5 Costs	Project Total
EXAMPLE ONLY!!! XYZ Corp.	Partner to develop optimal fresnel lens for Gen 2 product - Task 2.4	\$48,000	\$32,000		\$16,000		\$96,000
Task 1.a							\$0
WIEB	Manage WREZ Phase 3 activities, coordinate energy purchases from WREZs and monitor procurement schedules	\$108,423	\$108,455	\$52,088	\$52,116		\$321,082
Task 4-6 WIEB	Coordinate Steering Committee input into Topic A scenario analysis	\$1,438,097	\$1,437,958	\$1,217,616	\$1,054,029	\$940,415	\$6,088,115
							\$0
							\$0
							\$0
							\$0
							\$0

Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Budget Period 4 Costs	Budget Period 5 Costs	Project Total
	Sub-total	\$1,546,520	\$1,546,413	\$1,269,704	\$1,106,145	\$320,415	\$6,409,197

Vendor Name/Organization	Product or Service, Purpose/Need and Basis of Cost (Provide additional support at bottom of page as needed)	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Budget Period 4 Costs	Budget Period 5 Costs	Project Total
EXAMPLE ONLY!!! ABC Corp.	Vendor for developing custom robotics to perform lens inspection, alignment, and placement (Task 4). Required for expanding CPV module mfg. capacity. Cost is from competitive quotes.	\$32,900	\$86,500				\$119,400
Task 1.a. RAP (or similar contractor)	Interview LSEs, PUCs and companies to organize discussions on procurement schedules for LSEs and PUCs. Present paper identifying barriers to entry and methods to overcome these barriers.	\$115,683	\$68,852	\$9,314			\$193,849
Task 1.b. Consultant for Siting Case Studies Analysis	Document success and failures in transmission siting. Present findings to stakeholder group and report on recommendations developed through consensus of group.	\$100,000	\$100,000				\$200,000
Task 1.b. Meeting Facilitation	Facilitate siting and cost allocation stakeholder workshops	\$75,000	\$75,000	\$75,000			\$225,000
Task 1.b. Cost Allocation Consult	Identify cost allocation options. Conduct analysis on right sizing new transmission lines.	\$25,000	\$50,000	\$50,000			\$125,000
Task 1.c. Paul Orbuch	Facilitate stakeholder involvement and public outreach	\$35,000	\$87,500	\$70,000	\$17,500		\$210,000
Task 3. State Wildlife Pilot Projects	Conduct studies in coordination with state and federal wildlife officials on the identification and uniform mapping of crucial wildlife habitats and wildlife corridors to aid the development of a decision support structure for wildlife data.	\$3,200,000					\$3,200,000
Task 3. Paul Orbuch	consult to coordinate pilot projects and coordinators initiative	\$104,125	\$104,125				\$208,250
Task 3. GIS consultant	Work with states to provide consistent DSS technology across the western region	\$125,000	\$125,000				\$250,000
Task 7. State Water Assessment	Compile state water assessments	\$175,000	\$75,000	\$50,000			\$300,000
Task 7 WSWC	Work with WGA to gather input on water from western states	\$77,487	\$77,487	\$77,487			\$232,461
							\$0
							\$0
		\$4,032,295	\$762,964	\$331,801	\$17,500	\$0	\$5,144,560

FFRDC Name/Organization	Purpose	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Budget Period 4 Costs	Budget Period 5 Costs	Project Total
Los Alamos Nat'l Lab	Locations for storage and desmand side resource case study based on current state and federal policies	\$223,467	\$306,517	\$320,016			\$850,000
Lawrence Berkley Nat'l Lab	Develop inputs to Topic A for demand-side and generation options. Evaluate state RPS policies and identify attractive WREZs using the model.	\$570,000	\$598,000	\$612,000	\$634,000	\$650,000	\$3,064,000
Nat'l Renewable Energy Lab	Evaluate broad range of alternative energy futures; conduct integration and operating study and technology characteristics under Topic A.	\$380,000	\$380,000	\$80,000	\$80,000	\$80,000	\$1,000,000
Idaho Nat'l Lab	Evaluate the potential for carbon sequestration and/or reuse in the Western interconnection	\$291,200	\$290,000	\$245,000			\$826,200
Sandia Nat'l Lab	Assess water impacts on electricity generation scenarios and update water model using Western states water plans.	\$297,000	\$497,000	\$397,000			\$1,191,000

Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Budget Period 4 Costs	Budget Period 5 Costs	Project Total
Lawrence Livemore Nat'l Lab	Scenario development and analysis for GHG estimates from various sources and impact of climate change on Hydrogenation and balancing.	\$2,070,000	\$2,025,000	\$1,950,000			\$6,045,000
		\$3,831,667	\$4,096,517	\$3,604,016	\$714,000	\$730,000	\$12,246,200
Total Contractual		\$9,410,482	\$6,405,894	\$5,205,521	\$1,837,645	\$1,670,415	\$23,799,957

Additional Explanations/Comments (as necessary)

h. Other Direct Costs

PLEASE READ!!!

Other direct costs are direct cost items required for the project which do not fit clearly into other categories, and are not included in the indirect pool for which the indirect rate is being applied to this project. Examples are meeting costs, postage, couriers or express mail, telephone/fax costs, printing costs, etc.

Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

General description	Cost	Basis of Cost	Justification of need
Budget Period 1 - Task 1.a			
Conference Calls	\$2,500	Past Costs	
Printing	\$1,000	Past Costs	
Regional Discussion Groups (16/year @ \$750 per meetings)	\$12,000	Actual costs from meetings of similar size	
Budget Period 1 - Task 1.b			
Conference Calls/Webinars	\$4,000		
Printing/Shipping	\$1,000		
Siting Workshop (150 - 200 ppl)	\$11,500	Actual costs from meetings of similar size	
Permitting Forum (50 People)	\$3,600	Actual costs from meetings of similar size	
Cost Allocation Mtg (75 people)	\$5,250	Actual costs from meetings of similar size	
Budget Period 1 - Task 1.c			
Conference Calls with WGETAC	\$750		
WGETAC mtgs at WGA events (AV 2/year)	\$1,000		
Budget Period 1 - Task 2.b			
Conference calls	\$500	Past Costs	
Budget Period 1 - Task 7			
Conference Call	\$1,250		
Scenario analysis mtg (30-40 state empl)	\$2,500		
Budget Period 1 Total	\$46,850		
Budget Period 2 Task 1.a			
Conference Calls	\$2,500	Past Costs	
Printing	\$500	Past Costs	
Regional Discussion Groups (16/year @ \$750 per	\$12,000	Actual costs from meetings of similar size	
Budget Period 2 Task 1.b			

General description	Cost	Basis of Cost	Justification of need
Budget Period 4 Total	\$5,250		
Budget Period 5 Task 1.c			
Conference Calls with WGETAC	\$ 750		
WGETAC mtgs at WGA events (AV 1/year)	\$ 500		
Printing - summary of project	\$15,000		
Budget Period 5 Total	\$16,250		
PROJECT TOTAL	\$160,300		

Additional Explanations/Comments (as necessary)

i. Indirect Costs

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total
Rate applied:	0.0%	0.0%	0.0%	0.0%	0.0%	
Total indirect costs requested:	\$227,480	\$249,754	\$169,972	\$102,719	\$33,765	\$783,690

A federally approved indirect rate agreement, or rate proposed supported and agreed upon by DOE for estimating purposes is required if reimbursement of fringe benefits is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed. Calculate the indirect rate dollars and enter the total in the Section B., line 6.j. (Indirect Charges) of form SF 424A.

☒ There is a federally approved indirect rate agreement. A copy is provided with this application and will be provided electronically to the Contracting Officer for this project.
(When this option is selected, a presentation of the budget that demonstrates the application of the approved rate, to arrive at the proposed indirect charges proposed should also be provided.)

☐ There is no current, federally-approved indirect rate agreement.
(When this option is checked, the entity preparing this form shall submit an indirect cost rate proposal in the format provided at the following website, or in a format that provides the same level of information and which supports the rate(s) being proposed for use in estimating the project. Go to <https://www.eere-pmc.energy.gov/forms.aspx> and select PMC 400.2 Sample Rate Proposal.)

Additional Explanations/Comments (as necessary)