

**SCHEDULE A- ADEQUACY REVIEW CHECKLISTS
FOR § 4.51 AND § 4.61
(TRADITIONAL LICENSING PROCESS)**

**LICENSE APPLICATION
MAJOR CONSTRUCTED HYDRO EXHIBITS A-D, F, G, REGULATIONS (§ 4.51)**

SUBJECT	ADEQUATE	COMMENTS
<p>§4.51 (a) - Initial Statement</p> <p>(1) Applicant Name</p> <p>(2) Project Location</p> <p>(3) Business address for applicant and agents</p> <p>(4) Citizenship and preferences</p> <p>(5) State requirements and compliance</p> <p>(6) Owners of existing facilities</p> <p>Other Information</p> <p>Federal, state, local political entities and facilities identified, and affected Indian tribes §4.32(a)(2)</p> <p>Notice issued in local newspapers with proof of publication §4.32(b)(6)</p>		
<p>§ 4.51(b) Exhibit A - Project Description</p> <p>(1) Composition, dimensions, and configuration of dams, spillways, penstocks, powerhouses, tailraces, etc.</p> <p>(2) Reservoir area, gross and usable capacity, and elevation</p>		

SUBJECT	ADEQUATE	COMMENTS
<p>(3) Number, type, and capacities of turbines and generators</p> <p>(4) Transmission line numbers, lengths, voltage, and interconnections</p> <p>(5) Appurtenant facilities and equipment (electrical, mechanical, etc.) specifications</p> <p>(6) U.S. lands identified</p>		
<p>§ 4.51(c) Exhibit B - Project Operation</p> <p>(1) Manual/automatic operation; annual plant factor; operation during adverse/mean/high water years</p> <p>(2) Estimates of dependable capacity and generation, including:</p> <p>(i) Recorded minimum, mean, and maximum flows; losses; monthly flow duration curves; critical streamflow for dependable capacity</p> <p>(ii) Area-capacity curve with gross and usable storage; rule curve</p> <p>(iii) Plant minimum/maximum hydraulic capacity</p> <p>(iv) Tailwater rating curve</p> <p>(v) Head vs. power plant capability curve; maximum, normal, and minimum heads</p> <p>(3) Statement of use of project power and load curves</p> <p>(4) Statement of plans for future development</p>		

SUBJECT	ADEQUATE	COMMENTS
<p>§4.51(d) Exhibit C - Construction History</p> <p>(1) Construction chronology of existing structures, including:</p> <ul style="list-style-type: none"> (i) Commencement and completion of construction (ii) Commencement of commercial operation (iii) Dates of additions/modifications <p>(2) Schedule of proposed work (if applicable)</p>		
<p>§ 4.51(e) Exhibit D - Costs and Financing</p> <p>(1) If initial license, a tabulated cost statement, identifying costs of:</p> <ul style="list-style-type: none"> (i) Land or water rights (ii) Each existing structure <p>(2) If new license, and not a municipal or a state, the §14 takeover costs, including:</p> <ul style="list-style-type: none"> (i) Fair value (ii) Net investment (iii) Severance damages <p>(3) If proposed new construction, estimated costs, including:</p> <ul style="list-style-type: none"> (i) Land or water rights (ii) Cost of each facility, including: 		

SUBJECT	ADEQUATE	COMMENTS
<p>(A) Each major item</p> <p>(B) Indirect construction costs</p> <p>(C) Interest during construction</p> <p>(D) Overhead, contingencies, etc.</p> <p>(4) Average annual project cost, including:</p> <p>(i) Cost of capital</p> <p>(ii) Local, state, and federal taxes</p> <p>(iii) Depreciation</p> <p>(iv) O&M expenses, A&G expense, insurance, contingencies, etc.</p> <p>(v) Capital and O&M cost of each proposed environmental measure</p> <p>(5) Value of project power and basis</p> <p>(6) Statement on sources and extent of financing</p> <p>(7) Cost to develop application</p> <p>(8) On-peak & off-peak values of project power (provide justification)</p> <p>(9) Estimate annual increase due or decrease in project generation and value of project power to changes in project operations</p>		

SUBJECT	ADEQUATE	COMMENTS
§ 4.51(g) Exhibit F - Design Drawings (from § 4.41 (g))		
<ul style="list-style-type: none"> (1) Drawings of all major structures, showing: <ul style="list-style-type: none"> (i) Plan views (ii) Elevation views (iii) Profiles (iv) Section views (2) Preliminary design or final Exhibit F drawings (3) Supporting design report, including: <ul style="list-style-type: none"> (i) Suitability of site Condition of structures (ii) Geology and lab test reports (iii) Identify borrow/quarry sites and estimate needed material (iv) Major structures stability and stress test reports (v) Seismic loading and spillway design flood (4) Two copies of supporting design report 		
§4.51(h) Exhibit G – Map (from § 4.41 (h))		
<ul style="list-style-type: none"> (1) Map shows location of all project works and principal features (2) Project boundary shown and encloses all project features; described by surveys, contours, etc.; identifies all land owners 		

SUBJECT	ADEQUATE	COMMENTS
(3) Identify all Federal lands, and complete land description form		
(4) Identify applicant owned land, and lands to be acquired		

ADDITIONAL COMMENTS:

SUBJECT	ADEQUATE	COMMENTS
<p>§16.10 Exhibit H</p> <p><i>(a) Information to be provided by all applicants</i></p> <p>(1) Plans, abilities to operate and maintain reliable service i.e.</p> <ul style="list-style-type: none"> (i) Increase capacity (ii) Coordinate with upstream & downstream projects (iii) Coordinate with electrical systems to minimize costs <p>(2) Short & long term need by the application for project power:</p> <ul style="list-style-type: none"> (i) Reasonable costs & availability of alternative sources of power if license denied (ii) Cost increases incurred for alternate power, if license denied (iii) The effect of each alternate source of power on: (A) the applicant's customers, (B) the load operating characteristics, & 		

SUBJECT	ADEQUATE	COMMENTS
<p>(C) on the communities served</p> <p>(3) Data showing need, cost & availability of alternate power sources, i.e.</p> <p>(i) Annual cost of project. power, including basis for calculation</p> <p>(ii) Resources req. by applicant to meet applicant's capacity & energy needs over short/long term; including: (A) energy and capacity resources, (B) a resource analysis, & (C) load management measures</p> <p>(iii) For alternate sources of power including new capacity at existing units, new construction, off-system power purchases, & load management measures – (A) show annual cost of alternative, (B) basis of cost, and (C) a discussion of relative merit of each alternative</p> <p>(iv) The effect on direct providers of alternative power sources</p> <p>(4) Effect of losing power on applicant's own industrial facilities</p> <p>(5) If Indian tribe, statement tribe's need for power</p> <p>(6) Impact on applicant's transmission system of receiving/not receiving license, i.e.</p> <p>(i) Analysis of effects of redistributing flows, line losses, new lines, with costs</p> <p>(ii) Analysis of advantages of applicant's transmission system in distribution of power</p> <p>(iii) Detailed single-line diagrams</p>		

SUBJECT	ADEQUATE	COMMENTS
<p>(7) If there are plans to modify, statement of need to modify project. & conformance with compliance plans</p> <p>(8) If no modify plans, statement of conformity with compliance plans</p> <p>(9) Applicant's financial & personnel resources to meet obligations under new license</p> <p>(10) Notification by certification of land owners, if expansion</p> <p>(11) (i, ii) Applicant's electricity consumption efficiency improvement program with record of assisting customers to conserve power & does program comply with regulations</p> <p>(12) Names/addresses of Indian tribes if project.</p>		
<i>(b) Information to be provided applicant who is an existing licensee</i>		
<p>(1) The information specified in paragraph (a)</p> <p>(2) Statement of measures by licensee to ensure safe mgmt, operation, & maintenance of project with: (i) descriptions of project operation during flood, (ii) any warning devices to ensure downstream safety, (iii) a discussion of any changes that may affect EAP under Part 12, (iv) existing or planned structural monitoring devices, & (v) employee & public safety record</p> <p>(3) Current operation of project and constraints</p> <p>(4) History of project operation & maintenance</p> <p>(5) Discussion of power losses over last 5 years</p>		

SUBJECT	ADEQUATE	COMMENTS
(6) Licensee's compliance record (7) Actions taken by existing licensee that affect the public (8) Expenses that would be reduced if project is transferred (9) Annual fees paid under the FPA		
<i>(c) Information to be provided by an applicant who is not an existing licensee</i>		
(1) The information specified in paragraph (a) (2) Applicant's plans to manage, operate, and maintain the project safely with: (i) Differences between applicant's plans & the existing licensee's plans (ii) Measures to implement the existing EAP (iii) Applicant's plans to continue safety monitoring (iv) Applicant's request to licensee to provide transmission services		

ADDITIONAL COMMENTS:

**NEW LICENSE
MAJOR CONSTRUCTED HYDRO EXHIBIT E REGULATIONS
(Filed under 18 CFR §4.51)**

SUBJECT	ADEQUATE	COMMENTS
<p>§ 4.51(f) Exhibit E – Environmental Report</p> <p><i>(1) Existing environment description</i></p>		
<p><i>(2) Water Quality</i></p> <p>(i) Consumptive uses</p> <p>(ii) Existing water quality</p> <p>(iii) Minimum flow</p> <p>(iv) Improving water quality</p> <p>(v) Water quality impacts</p>		
<p><i>(3) Fishery resources</i></p> <p>(i) Description of existing resources</p> <p>(ii) Agency recommended mitigation</p> <p>(iii) Applicant proposed mitigation</p> <p>(iv) Anticipated impacts</p> <p>(v) Mitigation proposed:</p> <p>(A) Drawings</p>		

SUBJECT	ADEQUATE	COMMENTS
(B) Operation and maintenance (C) Implementation or construction schedule (D) Cost and financing (E) Maps		
<i>(3 cont.) Terrestrial resources and endangered species</i> (i) Description of existing resources (ii) Agency recommended mitigation FWS Comment on impacts on endangered species (iii) Applicant proposed mitigation (iv) Anticipated impacts (v) Mitigation proposed: (A) Drawings (B) Operation and maintenance (C) Implementation or construction schedule (D) Cost and financing (E) Maps		
<i>(4) Historical and Cultural resources</i>		

SUBJECT	ADEQUATE	COMMENTS
<ul style="list-style-type: none"> • Consultation with the SHPO and NPS (i) National Register status (ii) Agency mitigation recommendations and response (iii) Survey and salvage <ul style="list-style-type: none"> (A) Schedule (B) Cost and financing 		
<p>(5) Recreation</p> <ul style="list-style-type: none"> (i) Existing facilities (ii) Existing and potential use (iii) Agency recommended development (iv) Applicant proposed development (v) Development proposal: <ul style="list-style-type: none"> (A) Operation and maintenance (B) Construction schedule (C) Cost and Financing (D) Maps (vi) Designated waters and project lands 		

SUBJECT	ADEQUATE	COMMENTS
<p>(6) Land management and aesthetics</p> <ul style="list-style-type: none"> (i) Existing uses of project and surrounding lands (ii) Applicant proposed mitigation (iii) Wetlands (iv) Costs of buffer zones (v) Development (vi) Maps 		
<p>(7) Literature citations</p>		
<p>§ 4.38 and § 16.8 Consultation Requirements</p> <p>(b) Stage 1 Requirements Applicant has provided agencies with sufficient information including.</p> <ul style="list-style-type: none"> (1) A copy of the Pre Application Document required by § 5.6 (2) (i-viii) maps, engineering design, summary of existing operational changes, affected environment description, streamflow and water regime information, proposed studies, etc. (if may apply for non-power license exemption) (3) If elect to conduct pre-filing consultation, the applicant must: hold a joint meeting, site visit, consult with resource agencies and Indian tribes and the Commission, etc. (4) Provide meeting recordings or transcripts 		

SUBJECT	ADEQUATE	COMMENTS
<p>(c) Stage 2 Requirements Applicant has conducted necessary studies or provided an acceptable reason for not conducting such studies.</p> <p>(4) Applicant has provided agencies with:</p> <p>(i) A copy of the draft application.</p> <p>(A) A statement indicating the type of application the applicant expects to file with the Commission</p> <p>(ii) The results of all studies.</p> <p>(5) Applicant has allowed the agencies sufficient time to comment on the draft application prior to filing. 90 days.</p> <p>(d) Stage 3 Requirements Applicant has served a copy of the final application on each of the agencies.</p> <p>(f) General Requirements.</p> <p>Applicant has documented that all 3 stages of the consultation process were fully satisfied.</p> <p>(5) Applicant has included agency consultation letters or a detailed explanation of attempts to consultation described.</p> <p>(6) Applicant has discussed compliance with any applicable state and regional comprehensive plans.</p>		

ADDITIONAL COMMENTS:

**NEW LICENSE
MINOR OR MAJOR, LESS THAN 5 MW, CONSTRUCTED HYDRO
EXHIBITS A,F-H REGULATIONS (4.61)**

SUBJECT	ADEQUATE	COMMENTS
<p>§4.61(b) Initial Statement</p> <p>(1) Applicant Name</p> <p>(2) Project Location</p> <p>(3) Business address for applicant</p> <p>(4) Name, address, and telephone number for agents</p> <p>(5) Citizenship and preferences</p> <p>(6) State requirements and compliance</p> <p>(7) Brief project description including proposed installed capacity</p> <p>(8) U.S. Lands occupied – state, local</p> <p>Other Information</p> <p>Federal, state, local political entities and facilities identified, and affected Indian tribes §4.32(a)(2)</p> <p>Notice issued in local newspapers and proof of publication §4.32(b)(6)</p>		
<p>§ 4.61 (c) Exhibit A – Project. Described</p>		

SUBJECT	ADEQUATE	COMMENTS
<p>(1) (i) Number and capacity of generating units, future units?</p> <p>(ii) Turbine type</p> <p>(iii) Describe project operation</p> <p>(iv) Annual generation</p> <p>(v) Average head</p> <p>(vi) Reservoir surface area and storage capacity</p> <p>(vii) Hydraulic capacity (minimum and maximum)</p> <p> Monthly flow duration curves</p> <p> Drainage area</p> <p>(viii) Sizes, capacities, & construction materials of structures</p> <p>(ix) Project cost</p> <p>(x) Capital costs and estimated O&M costs of proposed environmental measures</p> <p>(2) Project purpose</p> <p>(3) Application development costs</p> <p>(4) On-peak and off-peak values used (include basis)</p> <p>(5) Average annual increase or decrease in project generation and value of power due to project changes.</p>		

SUBJECT	ADEQUATE	COMMENTS
(6) Undepreciated net investment (7) annual O&M expenses (8) Single-line electrical diagram (9) Measures to ensure safe management, O & M.		
§ 4.61(e) Exhibit F-Drawings of Project Works (see § 4.41 (g)) (1) Drawings of all major structures, showing: (i) Plan views (ii) Elevation views (iii) Profiles (iv) Section views (2) Preliminary design or final Exhibit F drawings (3) Supporting design report, including: (i) Suitability of site Condition of structures (ii) Geology and lab test reports (iii) Identify borrow/quarry sites and estimate needed material (iv) Major structures stability and stress test reports		

SUBJECT	ADEQUATE	COMMENTS
(v) Seismic loading and spillway design flood (4) Two copies of supporting design report		
§4.61(h) Exhibit G – Map (from § 4.41 (h)) (1) Map shows location of all project works and principal features (2) Project boundary shown and encloses all project features; described by surveys, contours, etc.; identifies all land owners (3) Identify all Federal lands, and complete land description form (4) Identify applicant owned land, and lands to be acquired		

ADDITIONAL COMMENTS:

SUBJECT	ADEQUATE	COMMENTS
§16.10 Exhibit H <i>(a) Information to be provided by all applicants</i> (1) Plans, abilities to operate and maintain reliable service i.e. (i) Increase capacity (ii) Coordinate with upstream & downstream projects		

SUBJECT	ADEQUATE	COMMENTS
<p>(iii) Coordinate with electrical systems to minimize costs</p> <p>(2) Short & long term need by the application for project power:</p> <p>(i) Reasonable costs & availability of alternative sources of power if license denied</p> <p>(ii) Cost increases incurred for alternate power, if license denied</p> <p>(iii) The effect of each alternate source of power on: (A) the applicant's customers, (B) the load operating characteristics, & (C) on the communities served</p> <p>(3) Data showing need, cost & availability of alternate power sources, i.e.</p> <p>(i) Annual cost of project. power, including basis for calculation</p> <p>(ii) Resources req. by applicant to meet applicant's capacity & energy needs over short/long term; including: (A) energy and capacity resources, (B) a resource analysis, & (C) load management measures</p> <p>(iii) For alternate sources of power including new capacity at existing units, new construction, off-system power purchases, & load management measures – (A) show annual cost of alternative, (B) basis of cost, and (C) a discussion of relative merit of each alternative</p> <p>(iv) The effect on direct providers of alternative power sources</p>		

SUBJECT	ADEQUATE	COMMENTS
<p>(4) Effect of losing power on applicant's own industrial facilities</p> <p>(5) If Indian tribe, statement tribe's need for power</p> <p>(6) Impact on applicant's transmission system of receiving/not receiving license, i.e.</p> <p style="padding-left: 20px;">(i) Analysis of effects of redistributing flows, line losses, new lines, with costs</p> <p style="padding-left: 20px;">(ii) Analysis of advantages of applicant's transmission system in distribution of power</p> <p style="padding-left: 20px;">(iii) Detailed single-line diagrams</p> <p>(7) If there are plans to modify, statement of need to modify project. & conformance w/ comp. plans</p> <p>(8) If no modify plans, statement of conformity with compliance plans</p> <p>(9) Applicant's financial & personnel resources to meet obligations under new license</p> <p>(10) Notification by certification of land owners, if expansion</p> <p>(11) (i, ii) Applicant's electricity consumption efficiency improvement program with record of assisting customers to conserve power & does program comply with regulations</p> <p>(12) Names/addresses of Indian tribes if project.</p>		

(b) Information to be provided applicant who is an existing licensee

SUBJECT	ADEQUATE	COMMENTS
<p>(1) The information specified in paragraph a</p> <p>(2) Statement of measures by licensee to ensure safe mgmt, operation, & maintenance of project with: (i) descriptions of project operation during flood, (ii) any warning devices to ensure downstream safety, (iii) a discussion of any changes that may affect EAP under Part 12, (iv) existing or planned structural monitoring devices, & (v) employee & public safety record</p> <p>(3) Current operation of project and constraints</p> <p>(4) History of project. operation & maintenance</p> <p>(5) Discussion of power losses over last 5 years</p> <p>(6) Licensee's compliance record</p> <p>(7) Actions taken by existing licensee that affect the public</p> <p>(8) Expenses that would be reduced if project is transferred</p> <p>(9) Annual fees paid under the FPA</p>		

(c) Information to be provided by an applicant who is not an existing licensee

<p>(1) The information specified in paragraph (a)</p> <p>(2) Applicant's plans to manage, operate, and maintain the project safely w/;</p> <p>(i) Differences between applicant's plans & the existing licensee's plans</p>		
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SUBJECT	ADEQUATE	COMMENTS
(ii) Measures to implement the existing EAP (iii) Applicant's plans to continue safety monitoring (iv) Applicant's request to licensee to provide transmission services		

ADDITIONAL COMMENTS:

**NEW LICENSE MINOR OR MAJOR, LESS THAN 5 MW, CONSTRUCTED HYDRO
 EXHIBIT E REGULATIONS
 (Filed under 18 CFR §4.61)**

SUBJECT	ADEQUATE	COMMENTS
§4.61(d)(2) Exhibit E – Environmental Report (i) Existing environment description Vegetative cover Fish and wildlife resources Water quality and quantity Land and water uses		

SUBJECT	ADEQUATE	COMMENTS
Recreational uses Historical and archeological resources (sites included in or eligible for National Register) Scenic and aesthetic resources Endangered or threatened species, critical habitats		
(ii) Description of environmental impacts and measures proposed to protect and enhance environmental resources		
(iii) Steps taken in consulting with agencies		
<p>§ 4.38 and § 16.8 Consultation Requirements</p> <p>(b) Stage 1 Requirements Applicant has provided agencies with sufficient information including.</p> <p>(1) A copy of the Pre Application Document required by § 5.6</p> <p>(2) (i-viii) maps, engineering design, summary of existing operational changes, affected environment description, streamflow and water regime information, proposed studies, etc. (if may apply for non-power license exemption)</p> <p>(3) If elect to conduct pre-filing consultation, the applicant must: hold a joint meeting, site visit, consult with resource agencies and Indian tribes and the Commission, etc.</p> <p>(4) Provide meeting recordings or transcripts</p> <p>(c) Stage 2 Requirements Applicant has conducted necessary studies or provided an acceptable reason for not conducting</p>		

SUBJECT	ADEQUATE	COMMENTS
<p>such studies.</p> <p>(4) Applicant has provided agencies with:</p> <p>(i) A copy of the draft application.</p> <p>(A) A statement indicating the type of application the applicant expects to file with the Commission</p> <p>(ii) The results of all studies.</p> <p>(5) Applicant has allowed the agencies sufficient time to comment on the draft application prior to filing. 90 days.</p> <p>(d) Stage 3 Requirements Applicant has served a copy of the final application on each of the agencies.</p> <p>(f) General Requirements.</p> <p>Applicant has documented that all 3 stages of the consultation process were fully satisfied.</p> <p>(5) Applicant has included agency consultation letters or a detailed explanation of attempts to consultation described.</p> <p>(6) Applicant has discussed compliance with any applicable state and regional comprehensive plans.</p>		

ADDITIONAL COMMENTS: