CURRICULUM VITAE

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Name:	**SOFIENLUND**, Einar
Job Title/Profession:	Managing Director, independent consultant & project manager
Born:	1958
Nationality:	Norwegian
Civil Status:	Divorced, 3 children (1986, 1988 and 1992)
Languages:	English (fluent), German (good), French (poor), Spanish, (knowledge)
Countries of Work Experience:	Bosnia and Herzegovina, Chile, Finland, Korea (DPRC), Kyrgystan, Malawi, Norway, Pakistan, Philippines, Sri Lanka, Tanzania, Uganda and Zambia
Professional Societies:	Norwegian Association of Chartered Engineers (NIF-Tekna)
Publications:	1991 "Drawings and documentation standards", college lecture book 1992 "Computer assisted design in general", college lecture book 1993 "Personal computers hardware & software", college lecture book 2003 “Paper on production optimisation” together with Vinogg and Li

Key Qualifications: Engaged within the field of electric power engineering throughout professional career with emphasis on planning, design and project management of power systems and hydro power plants.

Project work includes project management, feasibility studies, cost estimates, conceptual design, detail design, co-ordination, cost control and quality assurance quality control (QA/QC) of power projects. Project works also includes preparation of tender documents, tendering, tender evaluations, contract negotiations and signing. Extensive experience of project implementation and co-ordination as the Engineer according to FIDIC's definition with all aspects like preparation of time schedules, progress and cost mitigation and control towards budget and plans including reporting, site inspections and supervision of installations, commissioning including training and education of operating staff. Evaluation of least cost technical solutions for generating plants transmission systems and distribution systems.

Several years as part-time lecturer at Rud Technical College, Bærum, Norway on control systems for electrical installations, international standards (IEC), documentation of Electrical Power Systems and on the use of Computer Assisted Design (CAD) systems.

Several years of experience with development of several private micro-, mini- and small hydropower projects, complying Pelton, Francis and Kaplan turbines. These projects covers complete technical, economical, financial, operational, organisational and business arrangements for the various establishments.

In possession of a licence to operate high voltage equipment and board member of Fonhus power utility.

Education:

1980	B.Sc. Electrical Engineer majoring in electric power and high-voltage engineering, State College of Engineering (GIH), Gjøvik, Norway.
1991	Basic, Technical and Socio-Economical Analysis, Norwegian Institute of Technology (NTH), Trondheim, Norway
1992	Engineering Geology and Rock Mechanics for Hydropower Engineers, Norwegian Institute of Technology (NTH), Trondheim, Norway
1994	Degree within Professional Development Certificate (PDC), Project Establishment, Project Planning & Project Monitoring.
1994	Engineering Hydrology for Hydropower Engineers, Norwegian Institute of Technology (NTH), Trondheim, Norway
2002	Contract management, University of Business Administration (BI)

Other Training:

1983	Remote grid control systems for power networks (ABB and Siemens).
1985	Presentation technique related to communication (NEBB).
1986	Design of substations (Norwegian Society of Engineers).
1987	Situation analysis (SA), problem analysis (PA), resolution analysis (RA) and analysis of potential problems (APP) (Genco II, Kepner Tregoe).
1991	Post-graduate courses in educational science and pedagogy

Certified true and correct: 

Experience Record:

2005-present Sofienlund (Advisory Services)

Independent advisor with emphasis on development of small-, mini- and micro hydropower projects, and special advisor for governmental development aid projects.

- **Rud 1 Hydropower Plant, Norway** (2006-07) Head 240m 1*Pelton Q=0,3m3/sec
  Owner and project manager for the development of a 660 kW hydropower plant during the planning, procurement, construction, commissioning and operation phases.
  Client: Tyngdekraft as (partly owned company)
- **Fremstedalen Minihydropower Plant, Norway** (2006-07) Head 70m 1*Pelton Q=0,1m3/sec
  Advisor, procurer and project manager for the development of a 75 kW hydropower plant during the planning, procurement, construction and commissioning phases. Commissioned July 2007.
  Client: Tyngdekraft as (partly owned company)
- **Herefossen Hydropower Plant, Norway** (2006-07) Head 24m 1*Kaplan Q=11m3/sec
  Owner and project manager for the development of a 2500 kW hydropower plant during the planning, procurement, construction and commissioning phases.
  Client: Tyngdekraft as (partly owned company)
- **Melhusfossen Hydropower Plant, Norway** (2006-07) Head 7,5m 1*Kaplan Q=3m3/sec
  Owner and project manager for the rehabilitation of a 175 kW hydropower plant during the planning, procurement, rehabilitation and recommissioning phases.
  Client: Tyngdekraft as (partly owned company)
- **Raassaa Hydropower Plant, Norway** (2005-08) Head 460m 1*Pelton Q=1,3 m3/sec
  Project manager for the development of a 5 000 kW hydropower plant during the planning, procurement, construction and commissioning phases.
  Client: Raasaa Energi as
- **Heimseta Hydropower Plant, Norway** (2005-07) Head 49m 2*Francis Q=2,25 m3/sec
  Project manager for the development of a 1300 kW hydropower plant during the planning, procurement, construction, commissioning and operation phases.
  Client: Heimseta Kraft as
- **Rural Electrification Project 4 (REP4), Sri Lanka** (2004 - ongoing)
  Special advisor to assist Sida and CEB in connection with the establishment of the rural electrification development project.
  Client: Swedish International Development Agency (Sida),
- **Mapembazi Lupio, Republic of Tanzania** (2006-07), Head 40m 1*Kaplan,
  Special hydropower advisor with responsibility to develop the hydroelectric resources of the project located in Ruhudji river in the Njombe area.
  Client: Roman Catholic Church, Njombe
- **Alternative Power Supply Options, Republic of Togo** (2006)
  Special hydropower advisor called to evaluate the possibilities of supplying the Republic of Togo with independent power that should replace the import from Ghana.
  Client: Government of Togo
- **Boali Hydropower Scheme, Central African Republic** (2006) Head 25m 2*Kaplan,
  Special hydropower advisor called to evaluate possibilities for installation of two 5 MW generating units in Boali 3 hydropower plant.
  Client: Government of Central Africa
- **Kaupanger 2, 3 and 4 + Rud 1 Power Plants, Norway** (2005-07) Heads from 132 to 400m & Pelton
  Project manager for the development of three hydropower plants (2000, 4500 & 315 + 660 kW) during the planning, procurement, construction, commissioning and operation phases.
  Client: Kaupanger Energi as & Tyngdekraft as (Partly owned companies)
- **Stutgongfossen Hydropower Plant, Norway** (2005-06) Head 24m 2*Francis, Q=6,6 m3/sec
  Project manager for the development of a 1200 kW hydropower plant during the planning, procurement, construction, commissioning and operation phases. Commissioned May 2007.

Client: Stuttgongfossen kraftverk as

- **Knutfoss Hydropower Plant, Norway** (2005-07) Head 65m 2*Francis, Q=8 m3/sec
  Project manager for the development of a 4500 kW hydropower plant during the planning, procurement, construction, commissioning and operation phases.
  Client: Elstad Eenergi as
- **Nye Steinsrud Hydropower Plant, Norway** (2005-07) Head 24m 1*Kaplan, Q=5,5 m3/sec
  Project manager for the development of a 1000 kW hydropower plant during the planning, procurement, construction, commissioning and operation phases.
  Client: Tyngdekraft Nor ans (Main share holder in partly owned company)
- **Fonhus 1 Hydropower Plant, Norway** (2003-04) Head 355m 1*Pelton, Q=0,25 m3/sec
  Project manager for the development of a 620 kW hydropower plant during the planning, procurement, construction, commissioning and operation phases.
  Client: Fonhus Kraft as (Partly owned company)

1989-2005 NORCONSULT AS
2004–2005 Manager of Small hydro section
1989–2004 Project Manager, Electrical Engineer, Power Supply

Project work includes, Project management, planning and design of electrical installations for power systems, like distribution, transmission and hydropower plants etc. including education and training in operational and maintenance aspects.

He was responsible for Norconsult International's policy concerning computer hardware and software systems including in-house support and training in the period of 1990 to 1995.

Since 2004 he was manager for Norconsult's small hydropower development department.

- **Small Hydro Mission, Kyrgystan** (2004)
  Small hydro power expert with field inspections, evaluations, and recommendations for international funding, in compliance with governing local conditions such as laws, regulations, energy markets, electricity tariffs etc.
  Client: Department of Foreign Affairs (DFA), Kingdom of Norway

- **Pequenos Libombos Hydro Power Station, Mozambique** (2003-2004)
  Project manager and Electrical Engineer engaged to finalised the mini hydro project with inspections, evaluations, and final design, tendering, contracting, supervision, testing and commissioning of the 2 MW mini hydro plant, and the connecting transmission line.
  Client: Administracao Regional de Aguas do Sul (ARA-Sul)

- **Guidelines for planning, construction and operation of mini hydro plants, Norway** (2002-2003)
  Co-author during the issuing of the new guide as outlined above.
  Client: Norwegian Water Resources Administration (NVE)

- **Lilongwe Distribution Reinforcement Project - Phase 2, Malawi** (2001-2003)
  Senior Electrical Engineer engaged as a senior advisor to the Engineer ESCOM for rehabilitation and reinforcement project comprising ten (10) 66/33/11 kV distribution substations in the central part of Malawi and the Lilongwe area.
  Client: Norwegian Agency for Development Cooperation (NORAD)

- **Urambo and Serengeti Rural Electrification Project, Tanzania** (2001)
  Senior Electrical Engineer engaged as a senior advisor to Sida and Sten Lööf Consultants to evaluate the two RE projects for viability, environment, technical aspects including ranking and recommendations. The services did also comprise a demand forecast and cost estimates for 66 and 33 kV systems.
  Client: Swedish International Development Authority (Sida)

- **Sweden - Uganda Rural Electrification Project - Phase 1 and 2, Uganda** (2000-2001)
  Senior Electrical Engineer engaged as a senior advisor to Sida and Sten Lööf Consultants to evaluate five RE projects during phase 1 and five more during phase 2. The services included ranking and recommendations and comprised a demand forecast and cost estimates for 33 kV systems and small isolated mini hydro plants.
  Client: Swedish International Development Authority (Sida)

- **66 kV Mbala - Sumbawanga Transmission line Project, Zambia/Tanzania** (2000-2002)
  Took over as Project Manager and electrical engineer for the implementation of the 120 km rural electrification interconnector project. The services included total management, financial arrangements, contract management, site inspections and supervisions, testing and commissioning.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO) lead and
  Zambia Electricity Supply Corporation Ltd. (ZESCO)

- **Rehabilitation and Modernising of hydropower plants, Democratic Republic of Korea** (2002)
  Participated in a field survey with responsibility for rehabilitation of electric works comprising generators, transformers, HV switchgear, control and protection systems, SCADA and communication systems and transmission networks. Generating units ranging from 12 to 90 MW and high voltage switchgear ranging from 10 kV to 220 kV. The missions included site inspections of several hydropower plants that resulted into and evaluations and suggestions for a rehabilitation schemes.
  Client: Ministry of Electric Power and Coal Industry (MEPCI)

- **Rehabilitation of Bocac Hydropower Project, Bosnia and Herzegovina** (2001-2002)
  Overall responsibility for the rehabilitation comprising replacement of 220 kV switchgear, control and protection systems, telecommunication systems, parts of the auxiliary power supply. The missions included technical viability, economic adaptability and physical follow-up at site. The project also included rehabilitation of two distribution substations in Banja Luka village.
  Client: Norwegian Agency for Development Co-operation (NORAD)

- **Bahari Beach 33/11 kV Substation, Tanzania** (2000-2002)
  Project Manager and Electrical Engineer responsible for implementation of a turnkey project. Project works relates to Conceptual Design, Preparation of Tender Documents, Tender Evaluations, Contract Negotiations, and Implementation with Approval of Drawings, FAT, Certification of Invoices, Reporting, and Taking Over, etc.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Review of the Energy Sector, Uganda** (1999)
  Co-operation with NCG for a review of NORAD's engagement in Uganda's energy sector. The mission included also a review of the World Bank's Power III and Power IV projects with recommendations to NORAD for further financial assistance.
  Client: Norwegian Agency for Development Co-operation (NORAD)

- **Lilongwe Distribution Reinforcement Project, Malawi** (1999-2002)
  Project Manager and Electrical Engineer engaged as senior advisor for the Engineer ESCOM on a rehabilitation and reinforcement project of 5 distribution substations 66/33/11kV in the capitol Lilongwe.
  Client: Electricity Supply Corporation of Malawi Ltd. (ESCOM)

- **Assessment of the Rehabilitation needs for Ubungo Substation, Tanzania** (1998)
  Project Manager and Electrical Engineer responsible for performing site inspections, site investigations, rehabilitation recommendations, preparation of an investment plan, cost estimates and a Project Document report for total rehabilitation of the 220/132/33/11 kV in-feeding substation of Dar es Salaam. The works also included economic justifications of all investments and preparation of Terms of

Reference for the Consulting services for the Implementation phase. The work resulted into recommendation of a new 33/11 kV substation and included a Conceptual Design.
Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Chang'ombe 33/11 kV Substation, Tanzania** (1997-1998)
  Project Manager and Electrical Engineer responsible for a implementation of a turn key project. Project works relates to preparation of Tender Documents, Tender Evaluations, Contract Negotiations and Implementation. The project also includes implementation of a Maintenance Management System.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Re-establishment of HV-Switchgear Manufacturing, Bosnia & Herzegovina** (1997)
  Responsible for a review of Energoinvests Feasibility study for the re-establishment of their manufacturing facilities in Sarajevo.
  Client: International Finance Corporation (IFC)

- **Rehabilitation of Kidatu Power Plant, Tanzania** (1995-2000)
  Project Manager responsible for the rehabilitation of Kidatu hydro power plant. The works includes site inspections and condition assessment of the 200 MW power plant including the 220 kV pothead yard and the 220/33 kV switch gear. The feasibility study concluded with recommendations for an action plan to rehabilitate the plant including a second phase for preparations of Tender Documents. Part three contains implementation and site supervision.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Rehabilitation of Hale-Chalinze 132 kV Transmission Line, Tanzania** (1995-1996)
  Project Manager with responsibility for performing rehabilitation and site supervision of the 175 km long line containing 534 suspension-guyed steel towers.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Small Hydro Power Projects, Pakistan** (1994-1996)
  Electrical Engineer with responsibility for preparation of design, tender documents, tender evaluations, project follow-up, shop-tests, site supervision, commissioning and final approval of several minihydro projects in northern Pakistan.
  Client: Northern Areas Public Works Department (NAPWD), Pakistan

- **Proyecto Pangue SA, Chile** (1993-1997)
  Team leader for Programming and Planning of a 460 MW general enterprise contract for a hydropower project. Responsibility for preparing and establishing detail time schedules for design, manufacturing, site erection and commissioning for the whole plant including monthly reporting and follow-up. Also participation in design and planning of the various electrical aspects of the plant.
  Client: Empresa Electrica en Pangue SA, Chile and Kvaerner Turbin AB, Sweden

- **SADCC Energy Project TAN 3.5, Power Supply to Tunduma and Mbozi, Zambia/Tanzania** (1993)
  Responsibile for the commissioning and taking over for the 66/33 kV substation including supervision of the excitation of 62 km 33 kV distribution lines.
  Client: Zambia Electricity Supply Company (ZESCO) and
  Tanzania Electric Supply Company Ltd. (TANESCO)

- **Power System Master Plan, Bhutan** (1993)
  Electrical engineer for a two month desk study on technical and economic evaluation of the electrical installations of four large hydro power plants associated to 400 and 220 kV switchyards and substations.
  Client: Department of Power (DOP)

- **Dar es Salaam Gas Turbine Project, Tanzania** (1993)
  Responsible for the electrical works during the first phase of the project, including preparation of a feasibility study, project document, tender documents, tender evaluations and contracting. The second phase comprises shop testing, construction and commissioning follow-up and a training session on operation and maintenance. The works implied a necessary rehabilitation of the 33 kV switch gear.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Urgent repairs of Kidatu hydro power plant, Tanzania** (1993-1994)
  Project Manager or Team leader for one year for the repairs and rehabilitation of the plant with responsibility for the daily contact with the suppliers. The repairs and rehabilitation compriced repairs of one generating unit, repacement of exitation systems on four generating units and rehabilitation of two turbines.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Improvement of grid system voltage, Tanzania** (1993)
  Team Leader during one year with responsibility for the contact with suppliers for contractual and budget matters during the construction of 2*15 MVAr switched capacitor banks at the 33 kV busbars in Ubungo and Ilala substations.
  Client: Tanzania Electric Supply Company Ltd. (TANESCO)

- **Yali Hydropower Project, Vietnam** (1992 - 1993)
  Review of the design and economic evaluation and optimisation for electro-technical works on the 700 MW project including a substation with connections to the existing 500 kV transmission system.
  Client: Power and Investigation Company No. 1 (PIDC 1)

- **Villa Siga & Timbaban Hydropower Projects, Philippines** (1992 - 1993)
  Electrical engineer responsible for the technical and economic updating of the feasibility study for the two hydropower projects, 66 kV switchyards and transmission lines.
  Client: National Power Corporation (NPC)

- **CEAC/Nordel Co-operation, Central America** (1992 - 1993)
  Project Co-ordinator for a broad range of services in a technical assistance and institutional development building project in six Central American countries.
  Client: Consejo de Electrification de America Central (CEAC)

- **Electricity 1 Project, Angola** (1992)
  Project engineer assisting Nordic Development Fund (NDF) with a review of the financial analysis presented by the African Development Bank (AfDB).
  Client: Nordic Development Fund

- **Buksefjorden Hydro Electric Plant, Greenland** (1990 - 1993)
  Responsible for establishing the Quality Assurance/Quality Control (QA/QC) procedures and establishing the programming and planning including monthly reporting, for the total enterprise project. Participated also in planning, design, shop-tests etc. of various electrical aspects as needed. The project is situated in an artic climate and contains an underground plant with two generating units and a total capacity of 37 MVA and a 57 km 132 kV high voltage transmission line with the largest span of 5376m.
  Client: Greenland Energy Board (GE)

- **BOHECO 1 Training, Philippines** (1992 - 1993)
  Project manager for one year, assisting the Client in performing an institutional development program, containing a distribution network planning seminar, implementation of a regional meter calibration a computerised accounting and personnel system and a computerised procurement and warehousing system.
  Client: National Electrification Administration (NEA)

- **Janopol Mini Hydro Power Project, Philippines** (1990 - 1992)
  Electrical engineer. Inspection of electrical installations and work progress on site. Project manager for the preparation of a training programme for the operational staff and operational organization during the three years construction period.
  Client: National Electrification Administration (NEA)

- **Assistance to MEPE, Myanmar (Burma)** (1989)
  Computer modelling of a tender evaluation system, and particular tender evaluation of:
  Computers and consumer billing packages; Upgrading and sensitivity analysis of investment costs concerning the Paunglaung Hydropower Plant.
  Client: Myanmar Electrical Power Enterprise (MEPE)

- **Corumana Hydropower Project, Mozambique** (1989)
  Checking of manufacturers' design and shop tests of 2 x 9 MVA power transformers in Finland.
  Client: Electricidade de Moçambique (EDM)

- **Power II Project, Zimbabwe** (1989 - 1992)
  Home office project coordination and superintendence of work progress and budget matters for the system studies and for the engineering services during construction of 300 kV substations and transmission lines.
  Client: Zimbabwe Electricity Supply Authority (ZESA)

1980 - 89 NORSK ELEKTRISK & BROWN BOVERI A/S, Oslo, Norway

- Project Manager: Planning and coordination of engineering, manufacturing, erection and testing of electrical installations for hydroelectric plants and substations.
- Detailed engineering and design of control systems for electrical equipment in hydropower plants and substations.
- Establishment of standardized engineering drawings and documentation systems, including advisory services to clients.
- Responsible for education and in-house user support on computer-aided design (CAD). This system covers all engineering activities in connection with hydropower projects in Norway, including production of drawings, etc.

Project work includes:

1986-89:
- Several in-house computer programs to expand the CAD possibilities and improvement of interface.
- Advanced engineering program for automatic computer production of drawings which decreases the engineering aspects of routine tasks.
- Specifications for an integrated computerized database system to check and cover all administrative, economic and technical data in the different project stages.
- Teaching engineers how to structure documentation to fit the reference systems and computerized model, and optimising the implementation and use of these standardized systems.

1987: Aana-Sira Hydropower Station, Norway

- Project Manager responsible for adding a third 1 x 150 MVA generator, a second 300 kV bus system, 15 kV and 300 kV switch-gear, all fully equipped with control and protection systems.
  Client: Sira-Kvina Kraftselskap.

1986: 300-kV Transformer Stations in The Southern Norway Grid.

- Project management and detail design of control and relay protection for the 300 kV Southern Norway grid, when serial transmission line compensation was installed. Advanced new control techniques were developed.
  Clients: Sira-Kvina Kraftselskap and Statkraft.

1985 Naddvik Hydropower Plant, Norway.

- Planning and detail design of equipment for 1 x 130 MVA generating unit, power transformer, 132 kV SF_6-insulated switchgear and high voltage cables.
  Client: Aardal og Sundal Verk.

1984: Tjodan Hydropower Plant, Norway.

- Planning, detail design and commissioning of 1 x 130 MVA generating unit, power transformers, high-voltage oil-insulated cables and auxiliary power supply.
  Client: Lyse Kraft.

1982: Kjelland Transformer Station, Norway.

- Project Manager for detail design manufacturing and commissioning of a second 100 MVA transformer and a second 300 kV bus system, both fully equipped with control and protection systems, auxiliary power supply, testing and commissioning.
  Client: Lyse Kraft.

1980: Aurland II, Hydropower Plant, Norway.

- Detail design, testing and commissioning of control equipment for the following major installations: 2 x 60 MVA generating units, power transformers and 300 kV transmission lines.
  Client: Oslo Lysverker.

Selected listing of engagements within mini hydro projects during recent years:

	Project	*Installation*	*head*	*Turbine*	*Project status & particular topics*
1.	Koparvike	530 kW	5 m	Kaplan	Concession application, commissioned 2003
2.	Hovlandselva	1600 kW	390m	Pelton	Project evaluation
3.	Heimseta	1000 kW	44m	Francis	Project evaluation and concession application
4.	Nydalen	5000 kW	600m	Pelton	Project evaluation and concession application
5.	Bondestad	100 kW	125m	Pelton	Project evaluation
6.	Sagelva	300 kW	60m	Pelton	Project evaluation
7.	Valbyfoss	2000 kW	6 m	Kaplan	Production simulation
8.	Skafsåa	2500 kW	155m	Pelton	Project evaluation
9.	Kvernelva	5000 kW	250m	Pelton	Project evaluation
10.	Knutfoss	3000 kW	60m	Francis	Project evaluation and concession application
11.	Råssåfoss	5000 kW	450m	Pelton	Project evaluation and concession application
12.	Eikemo	16000 kW	250m	Francis	Pre-feasibility study
13.	Spjetfjellelva	9000 kW	135m	Francis	Project evaluation and concession application
14.	Bessedøra	3500 kW	90m	Francis	Project evaluation and concession application
15.	Aspervikelva	5000 kW	740m	Pelton	Project evaluation and concession application
16.	Rotvella	1000 kW	187m	Pelton	Water rights asset valuation
17.	Grindselvi	20 000 kW	250m	Francis	Initial investigation of 3 projects
18.	Nessane	10 000 kW	250m	Francis	Initial investigation of the project
19.	Stuttgongfossen	1200 kW	25m	Francis	Detail design, construction commission 2007

Selected listing of engagements in private hydropower development projects (1999-ongoing):

	Project	*Installation*	*head*	*Turbine*	*Project status & particular topics*
20.	Fønhus 1 mini hydro	620 kW	355m	Pelton	Complete services, commissioned 2004
21.	Fønhus 2 mini hydro	630 kW	200m	Pelton	Hydrology mitigation and pre-feasibility
22.	Kaupangselvi K2	2000 kW	132m	Pelton	Project review and detail engineering
23.	Kaupangselvi K3	3000 kW	450m	Pelton	Application for concession
24.	Kaupangselvi K4	300 kW	250m	Pelton	Application for concession
25.	Olmhusfallet 1	2000 kW	200m	Francis	Initial investigations
26.	Olmhusfallet 2	250 kW	46m	Francis	Preparation of application for concession
27.	Otertjernbekken	90 kW	250m	Pelton	Initial investigations & hydrology gauging
28.	Trossovbekken	1300 kW	500m	Pelton	Initial investigations
29.	Gudleikstølen	30 kW	116m	Pelton	Initial investigations (isolated grid)
30.	Skamåne	5000 kW	10,5m	Francis	Initial investigations
31.	Kvednaelve	1000 kW	450m	Pelton	Hydrology mitigation and evaluation
32.	Kolsrudfossen	1650 kW	8m	Francis	Initial investigations
33.	Nye Stensrud	1000 kW	22m	Francis	Application for concession (own SHP)
34.	Kvålselva	90 kW	250m	Pelton	Hydrological investigations
35.	Fulldøla	2000 kW	100m	Francis	Pre-feasibility std. and water right negotiations
36.	Nattmoråga	4000 kW	355m	Pelton	Feasibility std.
37.	Sandvika 1	4000 kW	400m	Pelton	Application for concession
38.	Sleåga	3500 kW	360m	Pelton	Pre-feasibility std.
39.	Komagåga	4500 kW	600m	Pelton	Pre-feasibility std.
40.	Oldervikelva	4500 kW	450m	Pelton	Pre-feasibility and concession application
41.	Mangåga	4500 kW	560m	Pelton	Application for concession (own SHP)
42.	Volldøla	2000 kW	400m	Pelton	Application for concession (own SHP)
43.	Stødnafossen	5000 kW	640m	Pelton	Application for concession (own SHP)
44.	Nottveit	3500 kW	300m	Pelton	Application for concession (own SHP)
45.	Homla	200 kW	9m	Francis	Application for concession (own SHP)
46.	Rudsbekken 1	660 kW	240m	Pelton	Application for concession (own SHP)
47.	Rudsbekken 2	630 kW	240m	Pelton	Application for concession (own SHP)
48.	Rudsbekken 3	440 kW	220m	Pelton	Application for concession (own SHP)
49.	Herrefoss	2000 kW	24m	Kaplan	Application for concession (own SHP)
50.	Melhusfossen	200 kW	7m	Kaplan	Application for concession (own SHP)
51.	Aa-Tverrelva	8000 kW	640m	Pelton	Application for concession (own SHP)
52.	Maldalen 1, 2 & 3				Pre-feasibility std.
53.	Kangsliåga	2000 kW	250m	Pelton	Project evaluation
54.	Kvitforselva	5000 kW	430m	Pelton	Pre-feasibility and concession application
55.	Kobbryggelva	5000 kW	250m	Pelton	Pre-feasibility and concession application
56.	Gisna	4000 kW	55m	Francis	Pre-feasibility and concession application
57.	Rovejohka	10 000 kW	640m	Pelton	Pre-feasibility and concession application
58.	Kuelva				Pre-feasibility std.
59.	Paraselva				Pre-feasibility std.
60.	Mellomdalselva				Pre-feasibility std.
61.	Beamsane				Pre-feasibility std.
62.	Fagervolla II	6600 kW	100m	Francis	Pre-feasibility std.
63.	Fagervolla III	8400 kW	366m	Pelton	Pre-feasibility std.
64.	Galtåga 1	1000 kW	220m	Pelton	Pre-feasibility std.
65.	Galtåga 2	2500 kW	170m	Pelton	Pre-feasibility std.
66.	Galtåga 3	10 000 kW	340m	Pelton	Pre-feasibility std.
67.					